Doctor of Clinical Psychology Degree

* **This volume was submitted in partial fulfillment of the degree of Doctor of Clinical Psychology**

INTERROGATIVE SUGGESTIBILITY OF PEOPLE WITH A LEARNING DISABILITY – THE INFLUENCE OF MODE OF ASSESSMENT

AND RESEARCH PORTFOLIO

KEITH M. BOWDEN

SUBMITTED FOR

CONTINUING PROFESSIONAL DEVELOPMENT

DOCTORATE IN CLINICAL PSYCHOLOGY

DEPARTMENT OF PSYCHOLOGICAL MEDICINE
UNIVERSITY OF GLASGOW

JULY 1998

ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 – 1346

ACKNOWLEDGEMENTS

I would like to express my thanks for the support and advice of my supervisor, Professor Colin Espie, and colleagues in the Department of Psychological Medicine. I would also like to thank Mr. John Cameron for the financial support provided by the Psychology Directorate of Greater Glasgow Community And Mental Health Services NHS Trust, and similarly Mrs. J. Bowden. I am also grateful to Linda Blair for transcription of recordings, to Andrea Smith and Brian O'Neil for data coding in one case study, other colleagues within the hospital who have supported these projects, and to David Johnson for his acting ability. I would particularly like to thank the individuals who participated in the major research project knowing there was no direct benefit to themselves. Finally, I would like to thank Jane, Calum and Jennifer for their love, support and understanding while family life has been so disrupted.

TABLE OF CONTENTS

APPENDICES

TABLE OF CONTENTS (SUPPLEMENTARY VOLUME)

SINGLE CLINICAL CASE RESEARCH STUDIES

1. SMALL SCALE SERVICE-RELATED PROJECT

Prevalence Of Self Injurious Behaviour In A Large Hospital For People With A Learning Disability– An Initial Survey

Keith M. Bowden

Department of Psychological Medicine, University of Glasgow

Research Supervisor: Professor Colin A. Espie
Department of Psychological Medicine
University of Glasgow

Written in accordance with guidelines for submission to
Health Bulletin (Appendix 1.1)

Prevalence Of Self Injurious Behaviour In A Large Hospital For People With A Learning Disability – An Initial Survey

Abstract

Objective: Self-injurious behaviour (SIB) is commonly reported as having a high prevalence in hospitals for people with learning disabilities, but may be increased as a consequence of discharge policies. This study represents the initial phase of a survey of the extent of SIB in a Scottish hospital.

Design: Ward managers completed a simple questionnaire identifying all residents with current or previous histories of SIB, and specifying the main type. Previously available information allowed comparison of changes in prevalence over time, and provided additional background information.

Setting: All wards of a hospital in Central Scotland.

Subjects: All residents in February 1997 were included in the study (n=539).

Results: 25.8% of residents were reported as currently engaging in SIB, but a further 12.6% were identified as having a history of SIB. Distribution throughout the hospital and effects of age and physical disabilities are reported. A new method of reporting type of SIB is introduced which categorises SIB according to type of action, location of target area, and damage inflictor.

Conclusions: The survey method limits the extent to which conclusions should be drawn from these results. Nevertheless, there is a clear indication of SIB being a significant unmet need which will continue to have implications for these individuals whether in hospital or community services. The next stage of the investigation will look at all identified individuals in more detail to determine the frequency, severity, and emotional impact of the behaviours identified in this initial survey.

INTRODUCTION

Self-injurious behaviour (SIB) is well recognised in services for people with learning disabilities as having a negative impact on the lives of individuals and their carers (Emerson, 1995; Hastings & Remington, 1995). Whilst behaviour in which individuals harm themselves occurs in other clinical populations, the nature and extent of SIB in learning disability services is generally different. For example, self-cutting, a common form of self-injury in psychiatric populations (Hawton, 1990), is rarely reported in people with learning disabilities. However, the potential for serious, or indeed life-threatening injury remains. The description of SIB as "challenging behaviour" acknowledges that such behaviours present a challenge to services to reduce the negative impact of such behaviour on the individual concerned (Emerson et al., 1988). Such negative impacts, in addition to the obvious physical harm and pain which results from SIB, include exclusion from ordinary community facilities and detrimental effects on social relationships and interactions (MacLean et al., 1994).

In considering the prevalence of SIB a number of confounding factors are apparent in the literature. Many possible definitions have been proposed ranging from "behavior which produces physical injury to the individual's own body" (Tate & Baroff, 1966), to more limiting definitions such as "repeated, self-inflicted, non-accidental injury, producing bruising, bleeding, or other temporary or permanent tissue damage" (Oliver et al., 1987). This means that where SIB is reported as a category in global studies of challenging behaviour, results may not be comparable (Rojahn, 1994), but even where distinct types of SIB are specified no particular

categorisation has become established. The number of categories of SIB used in studies has ranged from 5 (Johnson et al., 1988) to 23 (Maurice & Trudel, 1982) different types. Rojahn (1994), in reviewing six studies, notes 38 different topographies being reported, but only 9 of these appeared in more than half the studies. A further 9 types could be added if studies by Ferry (1992), Schroeder et al. (1980), Barron & Sandman (1984) and Maisto et al. (1978) were considered. It is generally agreed that common forms of SIB such as head-banging and self-biting should be included, but there is disagreement over how specific categories should be and what behaviours should be included. For example, pica may be included as a single category (Rojahn, 1986), split into different types (Ferry, 1992) or completely excluded, as representing a different category of behaviour (Oliver et al., 1987). It has been argued however, that pica is a very significant form of SIB as it is potentially fatal (McLoughlin, 1988; Schroeder et al., 1980). Even where types are similar, the inclusion criteria for studies regarding the recency, frequency, or severity of SIB, vary greatly. Rojahn (1986) requires that SIB has occurred within 14 days, is repetitive, and has the potential to cause damage, Oliver (1987) requires that tissue damage has occurred in the past 4 months, whilst Borthwick-Duffy (1994) distinguishes between "frequent" (at least once per week) and "frequent and severe" (at least once per month if response by doctor required, or once per week if first aid required). Other factors which influence reports of prevalence include level of learning disability (Maisto et al., 1978), method of data collection (Rojahn & Tasse, 1996), and the personal qualities of informants (Oliver et al., 1987).

Given the above the wide range of figures reported regarding prevalence of SIB is not surprising. A prevalence of around 8 – 15 % of residents of institutions is

commonly reported (Schroeder et al., 1980; Murphy, 1985; Sigafoos et al., 1994). However, these often relate to studies in the 1970's and 1980's and more recent examples report higher levels, such as 21.2% by Kiernan & Qureshi (1993), 31% by Emberson & Walker (1990), 31.2% for the frequency only group of Borthwick-Duffy (1994) and 48% by Ferry (1992) (although this was with a Special Hospital population). Three studies have previously reported prevalence in Scottish Hospitals, Ballinger (1971), Tierney et al. (1981), and Baker & Urquhart (1987) respectively reporting 14.9%, 12%, and approximately 14% (extrapolated). Surveys of community based populations show much lower levels, such as Rojahn 1986 with 1.7% and Kebbon & Windahl (1985) with 4.2%. However, this does not necessarily mean that institutional environments cause SIB as SIB is a recognised reason for admission to such establishments (Lakin et al., 1983). The growth of deinstitutionalisation has probably increased this differential as people with challenging behaviour have often been excluded from moves to community services (Felce & Lowe, 1993).

In addition to institutionalisation, other factors associated with higher SIB prevalence include severity of learning disability (Oliver, 1995), visual and auditory handicaps (Schroeder et al., 1978), age (Oliver, 1987) gender (Johnson & Day, 1992) and specific syndromes (Deb, 1998). Individuals engage in multiple topographies of SIB in approximately 50 – 75% of cases (Emerson, 1992), and it is recognised that SIB may have a multiplicity of causes. Despite reports of successful treatment interventions in the literature, it is clear that SIB continues to be a common feature of institutional life.

The current study was conducted in a large Scottish hospital. Informal observations had suggested a significant number of residents engaged in SIB, yet referrals to the psychology department for advice/intervention were infrequent. However, the hospital's psychological services are significantly under-resourced and this may have influenced referral patterns. It was felt appropriate to identify the prevalence of SIB before carrying out a more detailed audit of SIB patterns, and approaches to managing the behaviour within the hospital, in order to develop a systematic approach to wards with a high prevalence, in addition to targeting individuals. Previous prevalence figures for Scottish hospitals were expected to underestimate the current prevalence. This paper reports the initial survey process which was designed to identify all individuals with a history of SIB for detailed follow-up in later phases of the audit.

AIMS OF INVESTIGATION

1) To determine the number of residents of the hospital who are perceived as currently engaging in, or having previously engaged in self-injurious behaviour.
2) To compare these figures with information collected in a previous survey conducted in 1989/90 to identify changes in prevalence.

METHOD

Procedure

Support was obtained from the clinical audit committee, hospital management team and senior nurse managers. A survey form was sent to Ward Managers to identify

residents known to self-injure. Ward Managers who failed to return the form were phoned to encourage a response. Responses were categorised, entered in a database, and integrated with available information from two existing databases within the service (Medical Records and SUCCESS, described below).

Measures

Response Form A (Appendix 1.2) – This was developed for the current study and required respondents to name all residents on their ward who currently, or had previously, engaged in SIB, and the main type displayed. SIB was described as behaviours in which the individual causes or has potential to cause injury to themselves. Respondents were encouraged to include all possible individuals even if they were unsure if the behaviour should be included. The primary purpose of this was to identify those residents who would be followed up in a later study involving a more detailed analysis of the pattern and severity of SIB. Identification of the main form of injury was intended to highlight the most salient form of SIB in the ward and would not necessarily identify the most serious form (either in terms of frequency or severity). The level of detail required was minimised to encourage a good response.

Service User Capability & Competence Survey Schedule (SUCCESS) – This was developed in 1989 within the hospital to assist with service planning, and included information based on the Wessex categorisations (Caddell & Woods, 1984), general demographic details, behaviour ratings and community care recommendations. Data were collected on all residents throughout 1989 and 1990.

Of particular interest was one section relating to SIB, which was coded as "often severe problem", "occasionally severe problem", "often mild problem", "occasionally mild problem" or "never a problem". This database was no longer utilised, as a decision had been made to use a system of individualised planning rather than a categorical assessment. Information on the reliability and validity of the assessment was not available although it had been piloted on 10% of the population and subsequently adapted.

Medical Records Database – this identified all current residents of the hospital and allowed filtering of the SUCCESS database to exclude all former residents.

Participants

The study comprised all people resident in the hospital in February 1997, a total of 539 individuals (227 females and 312 males). The mean age of the population was 51.5 (S.D. 15.76) ranging from 20 to 93 years old.

RESULTS

Prevalence

Eighteen survey forms were returned promptly, four responded after being reminded by telephone, and the remaining ward was visited by the author and the form completed by interview, resulting in an eventual 100% response rate.

139 individuals were identified as "currently" engaging in SIB (25.8% of the total population) and 11 as having previously done so (a further 2.0%). Of the "current" group, 48 were female (21.1% of female residents), and 91 were male, (29.2% of male residents), demonstrating a significantly higher proportion of males self-injuring compared to the total hospital population (1-Tailed, P = .0426) which is consistent with the literature.

Comparison of Current Data with 1990 Survey Results

The 1990 SUCCESS database held data for 505 of the current 539 residents, allowing reasonable comparisons to be made between the two sets of data. Results for 2 current residents were missing and the remaining 32 had all been admitted to the hospital since 1990.

184 residents were identified as showing SIB in 1990, a prevalence of 19.3%, which is significantly lower than the current 25.8% (1-Tailed, P = .0001). As the number of residents has reduced from 953 to 539 since 1990, this may result from the greater likelihood of those engaging in SIB remaining in hospital, rather than from a change in individuals. The 1990 results were therefore filtered to include only those still resident in 1997, giving a prevalence of 26.9% which is not significantly different from the current level. However, when the results for individual residents are cross-tabulated as in Table 1 it is clear that both groups contain a number of different individuals.

Insert Table 1 here

Table 1 shows that 56 of the "current" self-injurers were not identified as having a problem with SIB in 1990, and are therefore possibly new cases of SIB. Furthermore, another 57 who had been identified as self-injuring in 1990 were no longer included in 1997 (even although details of those who had previously self-injured were requested). Only 11 individuals were identified in this category. Including both former groups with the current SIB group gives a total of 207 individuals with SIB reported within the last 8 years, 38.4% of the current population.

Distribution of SIB

The percentage of residents with SIB histories across the different wards is shown in Figure 1, with wards grouped according to their functional categorisation.

Insert Figure 1 here

It is immediately apparent from Figure 1 that SIB is spread throughout the hospital. Unsurprisingly, the highest concentration of current SIB is in the Challenging Behaviour wards where 48% of residents self-injure. However, this only represents 17.3% of those who currently self-injure within the hospital. The Special Needs wards have the next highest prevalence (35.8%) followed by the Long Stay wards

(24.2%) and then Care of the Elderly (12.1%). Although one "Other" ward (V) has no residents with SIB history, this is a unit of only four people, while ward W has relatively high prevalence as it is an admission ward.

Age

The ages of the current SIB group ranged from 20 to 80 years with a mean of 45.17 (S.D.=13.74), significantly younger than the rest of the population (F= 4.575 P= .033). This is reflected in the relatively low level in the elderly wards, and is confirmed in Figure 2 which shows the age distribution of the hospital population and the respective levels of SIB history.

Insert Figure 2 here

This graph shows that the hospital has a relatively elderly population, but that the highest prevalence of SIB is in the younger age groups, with a decreasing trend thereafter.

Associated Disabilities

Data from SUCCESS were also available in relation to visual, auditory and mobility problems in 1990. Whilst these may have changed since 1990 it is still worth comparing this information with current prevalence to see if any strong associations exist. This information is shown in Table 2 (combining the two groups of "previous" self-injurers as numbers were too small to allow statistical analysis otherwise).

Insert Table 2 here

Table 2 compares residents with visual or mobility problems displaying current SIB to those without such disabilities. No significant differences were present (Vision - $\chi^2 = 6.69$, significance > 0.2, 4 d.f.; Hearing [deaf & poor hearing combined to meet conditions for test] - $\chi^2 = 2.65$, significance > 0.3, 2 d.f., and Mobility - $\chi^2 = 7.77$, significance > 0.2, 4 d.f.).

Type of SIB

Given the difficulties in categorising SIB highlighted above, and as respondents specified the main type of SIB without any limiting categories, a new method of presenting this information is introduced which indicates the range of behaviours involved in SIB. More than one topography was provided spontaneously for 10% of cases, and in these instances each type has been included in the graphs, in order to provide a general indication of the relative frequencies. It is recognised that this will represent the minimum occurrence of these, as many types of SIB will not have been reported. The topographies were categorised by the author according to i) the type of action, ii) the body part injured, and iii) the item or body part which inflicts the injury, with categories selected on the basis of the descriptions provided by staff. The distribution of these is shown in Figure 3.

Insert Figure 3 here

The method of categorising SIB shown in Figure 3 indicates the very wide range of elements involved in the behaviour. At present the categorisations reflect the language used by ward staff in describing residents' behaviour. Combining the categories potentially provides a matrix of 17 actions by 20 target areas by 15 damage inflictors, but obviously some of these combinations are more realistic than others. Nevertheless this model can be used to describe a wide range of SIB's using one, two or all three of the elements depending on how many are reported by staff. As indicated earlier the graphs are not intended to represent the total prevalence of different types of SIB but to give a general indication of the most salient elements. It can be seen from Figure 3i) that staff are most likely to describe the action of SIB and that scratching and picking were the most commonly described, although it is possible that slapping, banging, punching and hitting reported may in some cases be describing similar actions. Biting is also strongly represented. Similar results can be seen in the literature (e.g. Oliver 1987). The high number of unspecified target areas in Figure 3ii) is probably because respondents were not specifically asked to detail these. It may also be that some individuals target multiple sites. The most commonly reported target areas are the head and hands which is again consistent with the literature (Symons & Thompson, 1997). Figure 3iii) shows that the highest proportion of injury is inflicted by the individual's own hands, nails or teeth, but that a wide range of external objects is also used.

DISCUSSION

The current prevalence of 25.8% clearly represents a significant increase on previously reported levels in Scottish hospitals. This may be strongly influenced by the likelihood of a higher proportion of individuals without challenging behaviours being discharged from hospital since 1990. It is anticipated that this will change in future, as the challenging behaviour wards are among those targeted for closure in the current discharge strategies. However, the information on distribution of people who self-injure indicates that such behaviour is hospital-wide, and a strategy to target SIB within the hospital focussing solely on challenging behaviour wards would miss over 80% of the population. The high prevalence in the 'special needs' wards probably reflect the association between severity of learning disability and SIB, but this was not confirmed as data on level of disability were not available.

The high number of people categorised as 'previous' self-injurers, particularly those not identified by staff on this occasion, makes it likely that the actual prevalence may be higher. At present it is not possible to determine why the previously categorised self-injurers were not identified, but there are two main possibilities. The first is that they have indeed stopped the behaviour. Figure 2 does suggest a reduction as people get older, although as these are not longitudinal data it is not possible to state this categorically. Furthermore, although chronicity of SIB is often reported (Emerson, 1995), Schroeder et al. (1978) found that while overall prevalence in an institution remained the same, (as reported by 'social workers'), over a three year period, the actual individuals identified varied considerably. Secondly, the reliability of reporting was not tested in either survey, and it is

possible that some of the differences are due to reporting error. Whether a behaviour is identified is likely to depend on the type, how it is perceived, the attitude of the reporter and the circumstances of occurrence (Tutton et al., 1990). It is therefore possible that some of this group do still engage in SIB.

Reliability is also a potential problem in the reported prevalence of sensory deficits from 1990. These were based on staff perceptions and suggest vision and hearing problems in 16% and 11% of residents respectively. However, a current study suggests hearing loss in 75% of residents and some visual defect in 95% of those tested so far (Kerr, 1998). It is hoped to be able to incorporate this information in the next stage of the study.

The new approach to describing SIB provides an indication of the wide range of behaviours which are identified by ward staff as being self-injurious, and include a number of behaviours which might not have been picked up by a traditional categorical approach, such as "pulls out gastrostomy tubes". Whilst such a behaviour might not fit some definitions of SIB it is important to include it, as its perception by staff as self-injury makes it likely to be responded to as such, and staff response to SIB has been identified as a major factor in its maintenance (Oliver, 1995). It is possible that further investigation of SIB using these three components (which can be conceptualised as representing the 'verb', 'subject', and 'object' of an occurrence of SIB) will allow identification of patterns of association between different types of SIB.

The current study has primarily acted as a filter to identify appropriate individuals for further analysis, which will consider each individual in more detail using the matrix of type of SIB identified so far. In addition this will include specification of the frequency, duration, severity and emotional impact of such behaviours, before completing an audit of care planning in relation to individuals' SIB, to determine what level of intervention may be appropriate, and to guide clinical practice, as the high prevalence of SIB indicates that this is clearly an unmet need within the current service.

Table 1. Cross-tabulation of results comparing categorisation of individuals in 1990 and 1997 surveys

	1990 Survey		1997 Survey							
	Total Hospital Population N=953		Total Hospital Population N = 505 (excludes 34 missing cases)		Residents with "**Current**" SIB N = 131 (excludes 8 missing cases)		Residents with "**Previous**" SIB N = 9 (excludes 2 missing cases)		Residents with SIB **Not noted** N = 365 (excludes 24 missing cases)	
SIB Rating in 1990	No.	%age	No.	%age	No.	%age	No.	%age	No.	%age
Often Severe Problem	52	5.5%	36	7.1%	29	22.1%	0	0.0%	7	1.9%
Occasionally Severe Problem	35	3.7%	29	5.7%	12	9.2%	3	33.3%	14	3.8%
Often Mild Problem	25	2.6%	16	3.2%	10	7.6%	1	11.1%	5	1.4%
Occasionally Mild Problem	72	7.6%	55	10.9%	24	18.3%	0	0.0%	31	8.5%
Any SIB (total of above rows)	184	19.3%	136	26.9%	75	57.3%	4	44.4%	57	15.6%
Never A Problem	769	80.7%	369	73.1%	56	42.7%	5	55.6%	308	84.4%

Figure 1. Distribution of residents identified as currently or historically engaging in SIB

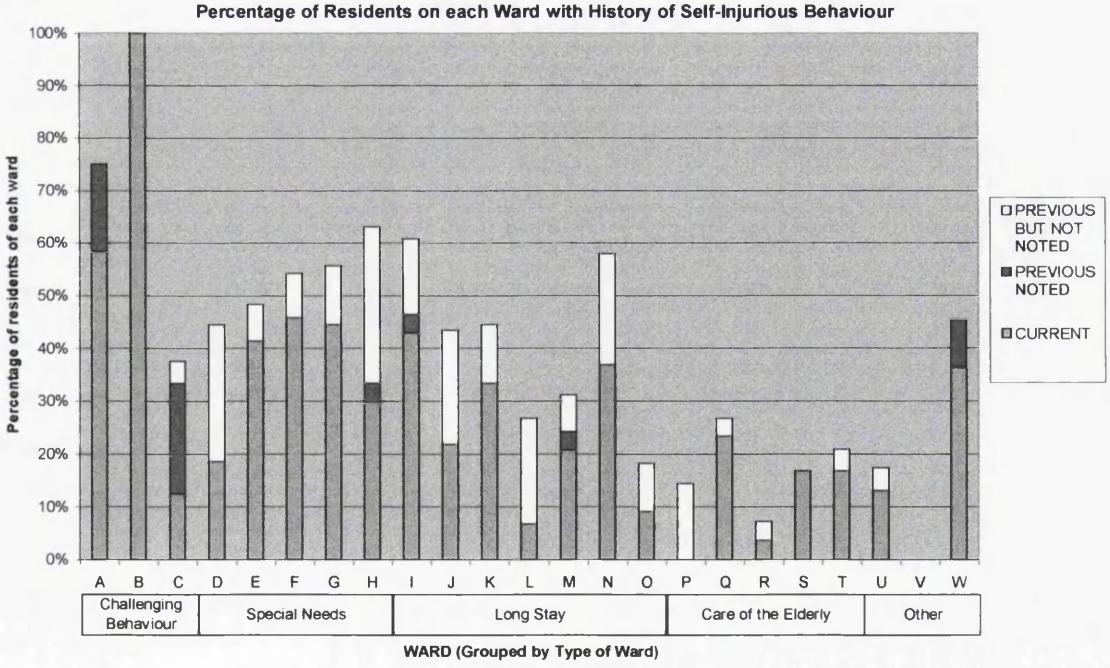


Figure 2. Prevalence of SIB according to age group

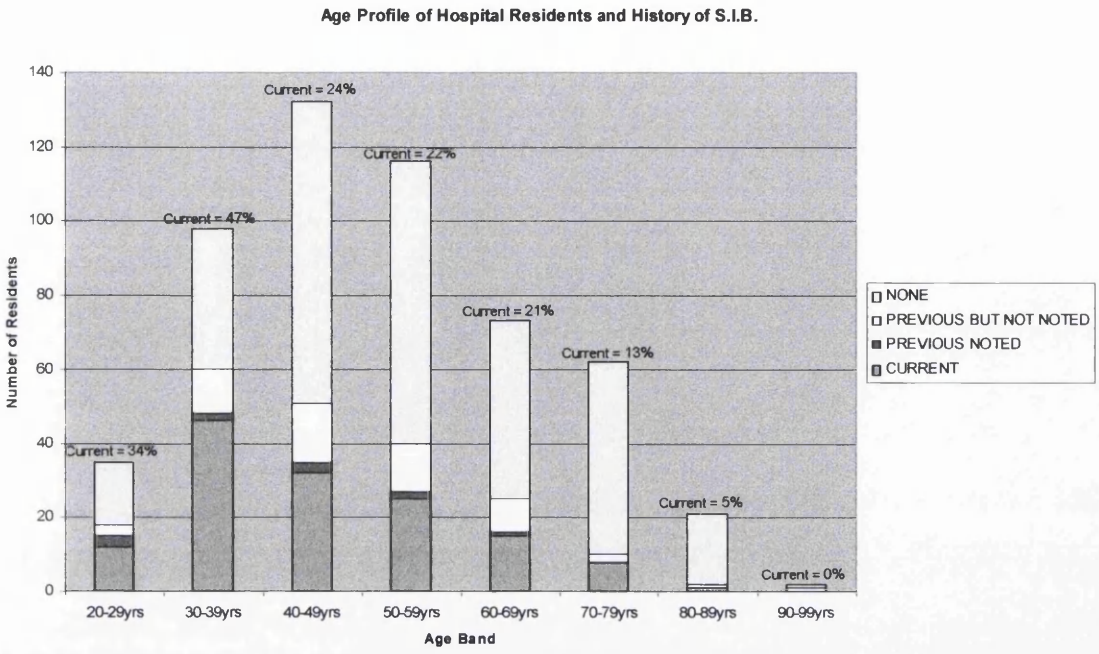
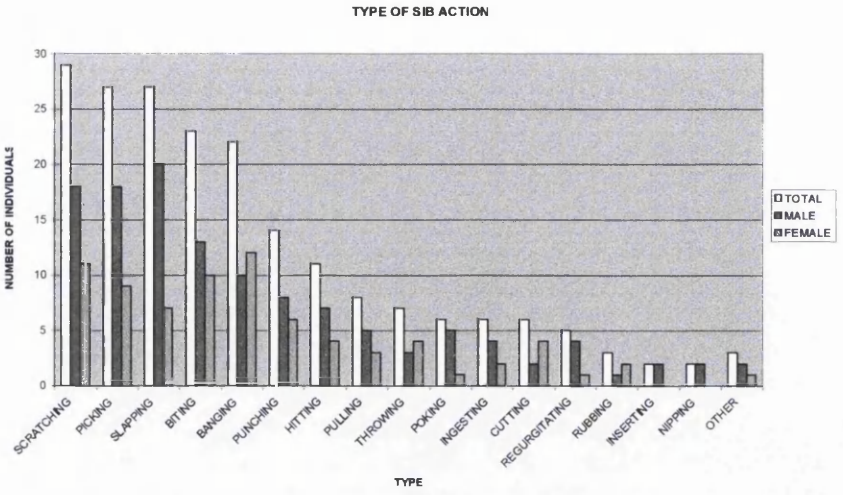
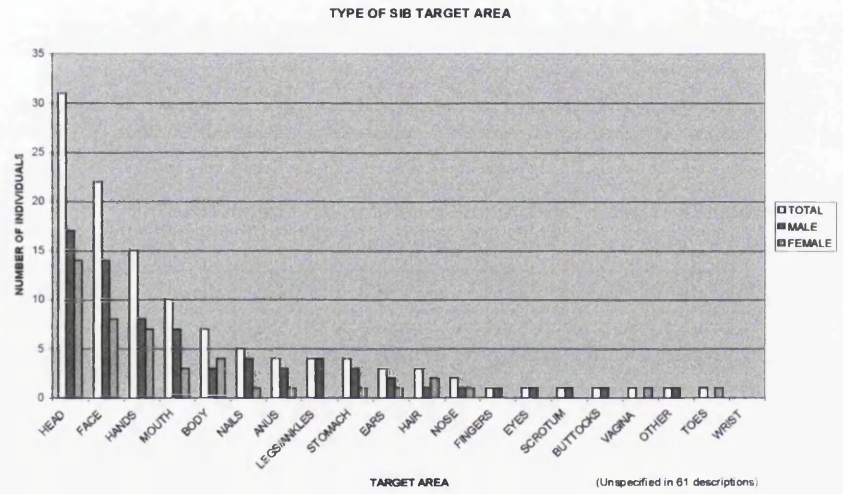


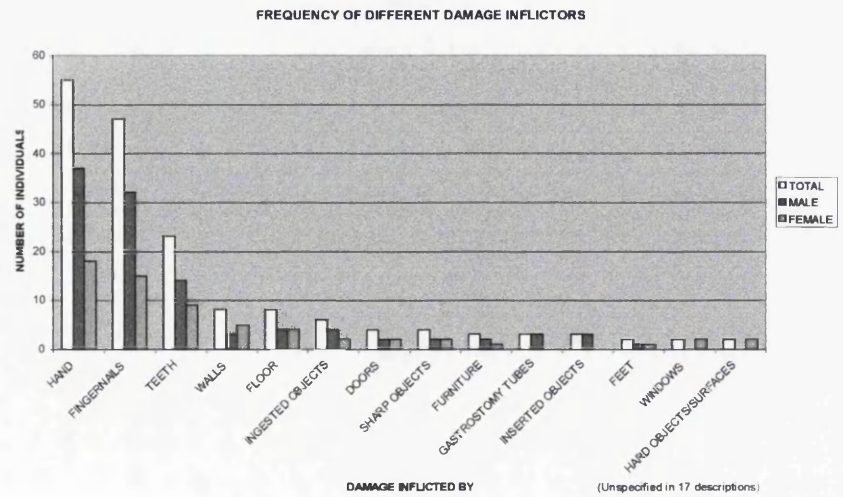
Table 2. Percentage of residents in relation to history of SIB and associated disabilities

Disabilities as reported in 1990 [includes information on 505 current residents – 34 not included in original survey]	CURRENTLY ENGAGE IN SELF-INJURIOUS BEHAVIOUR (n=131)		HAVE PREVIOUSLY ENGAGED IN SELF-INJURIOUS BEHAVIOUR (n=60)		NOT REPORTED AS HAVING ENGAGED IN SELF-INJURIOUS BEHAVIOUR (n=314)		TOTAL
	Number	%age of Total	Number	%age of Total	Number	%age of Total	
VISION							
Blind or Almost Blind	14	**37.8**	3	**8.1**	20	**54.1**	37
Poor Vision	7	**15.2**	9	**19.6**	30	**65.2**	46
Normal Vision	110	**26.1**	54	**12.8**	258	**61.1**	422
HEARING							
Deaf or Almost Deaf	6	**25.0**	2	**8.3**	16	**66.7**	24
Poor Hearing	7	**21.9**	2	**6.3**	23	**71.9**	32
Normal hearing	118	**26.3**	62	**13.8**	269	**59.9**	449
MOBILITY							
Not At All Mobile	34	**29.8**	10	**8.8**	70	**61.4**	114
Mobile but not up stairs	31	**27.2**	22	**19.3**	61	**53.5**	114
Mobile Anywhere	66	**23.8**	34	**12.3**	177	**63.9**	277

Figure 3. Graphs showing types of S.I.B. as reported by ward staff, categorised according to i) type of action, ii) location of injury and iii) what injury is inflicted by.







REFERENCES

Ballinger, B.R. (1971). Minor Self Injury. *British Journal Of Psychiatry*, **118**, 535-538.

Baker, N. & Urquhart, J. (1987). The Balance Of Care For Adults With A Mental Handicap In Scotland. Edinburgh: SHHD.

Barron, J.L. & Sandman, C.A. (1984). Self-Injurious Behaviour And Stereotypy In An Institutionalised Mentally Retarded Population. *Applied Research in Mental Retardation*, **5**, 499-511.

Borthwick-Duffy, S.A. (1994). Prevalence Of Destructive Behaviors A Study Of Aggression, Self-Injury, And Property Destruction. In T. Thompson & D.B. Gray, (Eds.) *Destructive Behavior In Developmental Disabilities Diagnosis And Treatment*. Thousand Oaks: Sage Publications.

Caddell, J. & Woods, P. (1984). The Bryn-Y-Neuadd Degree Of Dependency Rating Scale: An Extension Of The Wessex Mental Handicap Register. *Mental Handicap*, **12**, 142-145.

Deb, S. (1998). Self-Injurious Behaviour As Part Of Genetic Syndromes. *British Journal of Psychiatry*, **172**, 385-388.

Emberson, J. & Walker, E. (1990). Self-Injurious Behavior In People With A Mental Handicap. *Nursing Times*, **86**, 43-46.

Emerson, E. (1992). Self-Injurious Behaviour: An Overview Of Recent Trends In Epidemiological And Behavioural Research. *Mental Handicap Research*, **5**, 49-81.

Emerson, E. (1995). *Challenging Behaviour Analysis And Intervention In People With Learning Difficulties*. Cambridge: Cambridge University Press.

Emerson, E., Cummings, R., Barrett, S., Hughes, H., McCool, C. & Toogood, A. (1988). Challenging Behaviour And Community Services: 2. Who Are The People Who Challenge Services? *Mental Handicap*, **16**, 16-19.

Felce, D. & Lowe, K. (1993). Supporting People With Severe Learning Disabilities And Challenging Behaviours In Ordinary Housing. In C.Kiernan (Ed.) *Research To Practice? Implications Of Research On The Challenging Behaviour Of People With Learning Disability* (pp. 191-207). Cleveland: BILD Publications.

Ferry, R. (1992). Self-Injurious Behaviour. *Senior Nurse*, **12(6)**, 21-25.

Hastings, R.P. & Remington, B. (1995). The Emotional Dimension Of Working With Challenging Behaviours. *Clinical Psychology Forum*, **79**, 11-16.

Hawton, K. (1990). Self-Cutting: Can It Be Prevented?. In K. Hawton & P. Cowen (Eds.), *Dilemmas And Difficulties In The Management Of Psychiatric Patients.* Oxford: Oxford University Press.

Johnson, W.L., Day, R.M. & Hassanein, R.E.S. (1988, June). *Prevalence Of Self-Injurious Behaviors Within Public School Special Education Programs.* Paper Presented At The 112th Annual Meeting Of The Association On Mental Retardation, Washington DC.

Johnson, W.L. & Day, R.M. (1992). The Incidence And Prevalence Of Self-Injurious Behaviour. In J.K. Luiselli, J.L. Matson & N.N. Singh (Eds.), *Self Injurious Behavior: Analysis, Assessment And Treatment.* New York: Springer-Verlag.

Kebbon, L. & Windahl, S. (1985). *Self-Injurious Behaviour: Results Of A Nation-Wide Survey Among Mentally Retarded In Sweden.* Paper Read At The 7th World Congress Of The IASSMD, New Delhi, India.

Kerr, A.M. (1998). Vision And Hearing In People With Intellectual Disabilities. In M.Kerr, Innovations In Health Care For People With Learning Disabilities.

Kiernan, C. & Qureshi, H. (1993). Challenging Behaviour. In C. Kiernan (Ed.) *Research To Practice? Implications Of Research On The Challenging Behaviour Of People With Learning Disability* (pp. 53-65). Cleveland: BILD Publications.

Lakin, K.C., Hill, B.K., Hauber, F.A., Bruininks, R.H. & Heal, L.W. (1983). New Admissions And Readmissions To A National Sample Of Public Residential Facilities. *American Journal Of Mental Deficiency*, **88**, 13-20.

MacLean, W.E., Stone, W.L. & Brown, W.H. (1994). Developmental Psychopathology Of Destructive Behavior. In T. Thompson & D.B. Gray, (Eds.) *Destructive Behavior In Developmental Disabilities Diagnosis And Treatment* (pp.68-79). Thousand Oaks: Sage Publications.

Maisto, C.R., Baumeister, A.A. & Maisto, A.A. (1978). An Analysis Of Variables Related To Self-Injurious Behaviour Among Institutionalised Retarded Persons. *Journal Of Mental Deficiency Research*, **22**, 27-36.

Maurice, P. & Trudel, G. (1982). Self-Injurious Behaviour Prevalence And Relationships To Environmental Events. In J.H. Hollis & C.E. Meyers (Eds.), *Life-Threatening Behaviour*. Washington: American Association On Mental Deficiency.

Murphy, G. (1985). Self-Injurious Behaviour In The Mentally Handicapped: An Update. *Newsletter Of The Association Of Child Psychology And Psychiatry*, **7**, 2-11.

Oliver, C., Murphy, G. & Corbett, J.A. (1987). Self-Injurious Behaviour In People With Mental Handicaps: A Total Population Study. *Journal Of Mental Deficiency Research*, **31**, 147-162.

Oliver, C. (1995). Annotation: Self-Injurious Behaviour In Children With Learning Disabilities: Recent Advances In Assessment And Intervention. *Journal Of Child Psychology And Psychiatry*, **30(6)**, 909-927.

Rojahn, J. (1986). Self-Injurious And Stereotypic Behaviour Of Non-Institutionalised Mentally Retarded People: Prevalence And Classification. *American Journal Of Mental Deficiency*, **91**, 268-276.

Rojahn, J. (1994). Epidemiology And Topographic Taxonomy Of Self-Injurious Behavior. In T. Thompson & D.B. Gray, (Eds.) *Destructive Behavior In Developmental Disabilities Diagnosis And Treatment.* Thousand Oaks: Sage Publications.

Rojahn, J. & Tasse, M.J. (1996). Psychopathology In Mental Retardation. In J.W. Jacobson & J.A. Mulick (Eds.), *Manual Of Diagnosis And Professional Practice In Mental Retardation.* American Psychological Association

Schroeder, S.R., Schroeder, C.S., Smith, B. & Dalldorf, J. (1978). Prevalence Of Self-Injurious Behaviours In A Large State Facility For The Retarded: A Three Year Follow-Up Study. *Journal Of Autism And Childhood Schizophrenia*, **8**, 261-269.

Schroeder, S.R., Mulick, J.A. & Rojahn, J. (1980). The Definition, Taxonomy, Epidemiology, And Ecology Of Self-Injurious Behavior. *Journal Of Autism And Developmental Disorder*, **10(4)**, 417-432.

Sigafoos, J., Elkins, J., Kerr, M. & Attwood, T. (1994). A Survey Of Aggressive Behaviour Among A Population Of Persons With Intellectual Disability In Queensland. *Journal Of Intellectual Disability Research*, **38**, 369-381.

Tate, B.G. & Baroff, G.S. (1966). Aversive Control Of Self-Injurious Behaviour In A Psychotic Boy. *Behaviour Research And Therapy*, **4**, 281-287.

Tierney, I.R., Fraser, W.I., McGuire, R.J. & Walton, H.J. (1981). Stereotyped Behaviour - Prevalence, Function And Management In Mental Deficiency Hospitals. *Health Bulletin*, **39**, 320-326.

Tutton, C., Wynne-Wilson, S. & Piachaud, J. (1990). Rating Management Difficulty: A Study Into The Prevalence And Severity Of Difficult Behaviour Displayed By Residents In A Large Residential Hospital For The Mentally Handicapped. *Journal Of Mental Deficiency Research*, **34**, 325-339.

2. MAJOR RESEARCH PROJECT LITERATURE REVIEW

Police Interviewing And Interrogative Suggestibility Of People With Learning Disabilities

Keith M. Bowden

Department of Psychological Medicine, University of Glasgow

Research Supervisor: Professor Colin A. Espie
Department of Psychological Medicine
University of Glasgow

Written in accordance with guidelines for submission to
Medicine, Science and the Law (Appendix 2.1)

POLICE INTERVIEWING AND INTERROGATIVE SUGGESTIBILITY OF PEOPLE WITH LEARNING DISABILITIES

ABSTRACT

The literature relating to the involvement of people with learning disabilities in the criminal justice system is reviewed. Consideration is given to the involvement of people with learning disabilities in criminal activity, as perpetrator or victim, and of how this may differ from the general population. The importance of skilled police interviewing in preventing false confessions, and also facilitating accurate witness statements, is stressed. The particular susceptibility of people with learning disabilities to interrogative suggestibility in relation to this is presented, and the use of the Gudjonsson Suggestibility Scales is reviewed. Some limitations of these are highlighted, particularly that the design of the scales can make it difficult to distinguish between acquiescent and suggestible responding, and that the effect of presenting the initial narrative task in the verbal modality requires further investigation.

POLICE INTERVIEWING AND INTERROGATIVE SUGGESTIBILITY OF PEOPLE WITH LEARNING DISABILITIES

INTRODUCTION

"It was further submitted that Mr.O was yielding to suggestions and had made self-incriminatory statements based upon the information given to him in questions, rather than his knowledge." (Howells & Ward, 1994, p.179).

Mr.O was a man with a learning disability who had confessed to murder. He may well have been guilty but analysis of the police questioning technique raised sufficient doubt to lead to acquittal. Infamous cases where individuals with learning disabilities have falsely confessed to murder (e.g. Timothy Evans (Kennedy, 1988), Colin Lattimore (Price & Caplan, 1977)), have confirmed the potential for suggestible responding in police interviews (Gudjonsson, 1992). This has led to the development of the Gudjonsson Suggestibility Scales (Gudjonsson, 1984, 1987), which are designed to determine the level of suggestibility in an interrogative situation, although their development was particularly prompted by questions of witness competence regarding a woman with a learning disability who had been abused. Suggestibility therefore has implications for the interface between people with learning disabilities and the criminal justice system.

The gateway to the criminal justice system is via the police. Like other members of the public, people with learning disabilities may become involved with this system as victims, witnesses or suspects, but may not become fully integrated in it. The

implications of this will be discussed, as will the implications of police interview techniques in general and for people with learning disabilities specifically. This will be followed by consideration of other aspects of the legal system relating to people with mental disorders. Concerns regarding the suggestibility of such individuals will be discussed. Finally, areas for further study will be identified.

CRIME AND PEOPLE WITH LEARNING DISABILITIES

The vulnerability of people with learning disabilities to being victims of crime is increasingly recognised (Williams, 1995). This may be up to four times higher than the general public (Wilson & Brewer, 1992; Holding, 1997), which may reflect limitations in interpersonal competence (Wilson et al., 1996). Particular concerns have been expressed regarding sexual abuse (Brown, Stein & Turk, 1995; Sobsey & Doe, 1991) where limited ability to disclose abuse increases vulnerability (Rusch et al., 1986). Concern also exists regarding the willingness of the legal system to fully protect such victims (Williams, 1993) and its failure in bringing cases to court (Gunn, 1990) has been acknowledged by senior policemen (Pollard, 1998), and lawyers (BMA & Law Society, 1995). Indeed the latter reference recommends that lawyers should contest decisions not to prosecute in some cases, where concern about the credibility of a victim/witness with a learning disability may be a factor. There is also evidence that witnesses who have learning disabilities may not even be questioned, far less interviewed (McNulty et al., 1995).

One of the most likely situations for a person with a learning disability to witness a crime is within services where the perpetrator also has a learning disability, but there is concern about reluctance to prosecute in such cases (Carson, 1989), and about staff not reporting incidents to the police (Lyall et al., 1995). Nevertheless, people with learning disabilities do become involved with the criminal justice system as suspects.

Gudjonsson et al.'s (1993) study in a police station reported 8.6% of suspects with IQ's <70, and is often quoted as proof of the high prevalence of people with learning disabilities involved in crime. However, testing only involved 3 sub-tests of the WAIS-R and was acknowledged within the report as probably under-estimating IQ. A more recent study (Winter et al., 1997) has shown no such over-representation. A similarly contradictory picture emerges with prison studies. For example, MacEachron (1979), reviewing studies in American prisons found reported prevalence to range from 2.6-39.6%, which appeared to result from often dubious assessment procedures. She herself identified prevalence as only slightly higher than the general population. However, when the lack of crime by people with severe and profound disabilities is considered it is likely that there is a higher than average prevalence in the mild and borderline disability population (Cullen, 1993).

Whether as suspect, witness or victim, if a legal response is to be pursued this will necessitate police involvement. The quality of their interview is crucial in making best use of the evidence obtained.

POLICE INTERVIEWING

Whilst Police Officers are frequently recorded as perceiving interviewing as one of their most significant skills, the evidence suggests a much more confused picture (McLean, 1995). Although 98% of detectives' cases involve interviewing (McGurk et al., 1994), until recently most officers received no formal interview training (Moston et al., 1992). Following concern about interrogation techniques, a series of studies established by the Royal Commission On Criminal Procedure (Irving & Hilgendorf, 1980; Irving, 1980; Morris; 1980) highlighted inconsistent practices and concern about questioning approaches and rights of interviewees. Such concerns led to the establishment of the Police and Criminal Evidence Act 1984 (PACE) in England and Wales, which introduced new safeguards including tape recording formal interviews. Whilst this is believed to have reduced the use of persuasive questioning, this may still take place outwith formal interviews (Moston & Stephenson, 1993a). Even when detectives use an investigative rather than interrogative approach (Williamson, 1993), analysis of audio and video records suggests the quality of such interviews remains inconsistent (Baldwin, 1993). Similar concerns relate to written statements. Irving (1980, p.129) noted that "The less intelligent or emotionally upset suspect may have to be supplied with most of the content of the statement by the interviewing officer". McLean (1995), himself a Police Inspector, found in a study of 16 interviews that four statements included facts contrary to the witness's testimony, yet all were signed as a true record. He also noted a very high use of leading questions.

The major aim in interviewing a suspect is to obtain a confession (Kapardis, 1997) as this is likely to have a significant impact on the likelihood of subsequent conviction (Gudjonsson & MacKeith, 1988). Despite the introduction of PACE and changes regarding the admissibility of confession evidence it has been argued that the underlying confession rate has remained constant (Moston & Stephenson, 1993b). Whilst eliciting genuine confessions is vital in policing, (Baldwin & McConville, 1980, finding that the confession was crucial in 30% of cases), the credibility of the police is damaged when false confessions, particularly in high profile cases such as the Birmingham Six, are obtained (Gudjonsson, 1992). Various models of why people confess have been proposed (see Gudjonsson, 1992), but three main types of false confession have been identified: i) Voluntary false confessions; ii) Coerced-compliant confessions, where the person confesses for instrumental gain, e.g. to stop the interview, and iii) Coerced-internalised false confessions, where suspects come to believe their own guilt.

Clare & Gudjonsson (1995) have shown experimentally that people with learning disabilities were less likely to understand the implications of a false confession, believing that the truth would still emerge. This would make them particularly vulnerable to coerced-compliant confession. In addition people with learning disabilities have little understanding of their rights, partly due to the complexity of the 'Notice to Detained Persons' (Clare & Gudjonsson, 1992), and, as in the case of Mr.O, may confess before consultation with a lawyer, as suspects without legal advice are more likely to confess (Moston et al., 1992). The tendency of individuals to indicate that they understand their rights, when further investigation

shows they do not, has been shown across a number of jurisdictions (Gudjonsson et al., 1993; Baroff, 1996; Cooke & Philip, 1998).

This lack of comprehension can make people with learning disabilities particularly vulnerable within interviews, and numerous further examples exist of false confession by learning disabled individuals (e.g. Craft, 1985; Gudjonsson & MacKeith, 1994; Perske, 1994; White, 1997). However, it is important that the legal system recognises that such individuals can provide reliable evidence (Gudjonsson & Gunn, 1982), but care is required in eliciting and interpreting such information. Particular problems may occur in relation to some individuals' communication skills. Holding (1997) reports the confusion caused by the distress of a victim who stated that she "had to face" the suspect, until it was recognised that this was her way of describing fellatio. Bull (1995) stresses that the quality of information obtained from such interviews is very dependent on the skills of the interviewer. Unfortunately, studies of police interviewing people with learning disabilities (Tully & Cahill, 1984) have not promoted grounds for optimism.

PACE introduced elements to assist in such interviews, the most significant of which was an 'Appropriate Adult'. The role of the Appropriate Adult in England and Wales is "first, to advise the person being interviewed and to observe whether or not the interview is being conducted properly and fairly, and secondly to facilitate communication with the person being interviewed" (Brown et al., 1996). Although this should produce safeguards and improve communication it has been criticised on the basis that police officers are poor at identifying when Appropriate Adults are required (Pearse, 1995), there can be confusion regarding 'fitness to be interviewed'

(Norfolk, 1997), up to 75% of Appropriate Adults have been shown to make no particular contribution (Evans, 1993), and the role is unclear and can create confidentiality problems (Littlechild, 1995; Palmer 1996). In Scotland the role of Appropriate Adult has only recently acquired the status of recommendation rather than guidance (Scottish Office, 1998), but is explicitly restricted to facilitating communication. Together with the fact that solicitors are not usually present in police interviews, this appears to increase the potential for false confession in Scotland, although this is likely to be balanced by the requirement for corroboration (Stewart, 1997). The Scottish Office document implicitly acknowledges the limitations of police interviewing by recommending "It is essential that all police officers are fully conversant with the terms of this guidance...together with basic techniques for dealing with mentally disordered individuals. This will also include *developing* [author's italics] a form of questioning which must ensure, as far as practicable, that inappropriate answers are not elicited." (p.16). Possible causes of such answers include acquiescence, compliance, confabulation and suggestibility (Gudjonsson, 1983, Clare & Gudjonsson, 1993, Howells & Ward, 1994, Sigelman et al., 1981).

INTERROGATIVE SUGGESTIBILITY

Although elements of suggestibility have been recognised since Binet (1900), it is Gudjonsson's model of interrogative suggestibility which has a significant impact within the legal system. This has been defined by Gudjonsson and Clark (1986) as "the extent to which, within a closed social interaction, people come to accept messages communicated during formal questioning, as the result of which their

subsequent behavioural response is affected" (p.84) and is described as having five components i) a social interaction; ii) a questioning procedure; iii) a question containing a suggestion; iv) acceptance of a suggestion; and v) a behavioural response (Gudjonsson, 1997). Furthermore he identifies three prerequisites for this, namely uncertainty (regarding the correct answer to a question), interpersonal trust (that the interviewer is genuine) and expectation (that interviewees believe they are expected to know the answer). This model led to the development of the Gudjonsson Suggestibility Scale (GSS1, Gudjonsson, 1984) and its parallel form (GSS2, Gudjonsson, 1987). Both use the structure of a narrative passage, as in the Wechsler Memory Scale, with 40 'distinct' ideas, being read out. This allows assessment of immediate and delayed memory, and confabulation of information not contained in the story. It also enables the true purpose of the test to be concealed by representing it as a memory task. After a delay the person is asked a series of 20 questions, 15 of which are leading, to discover how far they "yield" to this type of question. The leading questions are described as being of three types: 'false alternatives' which provided two options, neither of which appear in the story; 'leading' which include a salient premise that will promote a positive response, and 'affirmative' in which there is no salient premise but the content is likely to create doubt and again promote an affirmative response. However, it is difficult to discriminate between these last two categories, as has now been recognised by Gudjonsson (1997) so that he does not discriminate between them on the scales. The second element of interrogative suggestibility is vulnerability to "shift" answers in response to negative feedback. This is tested in the GSS by the person being informed that they have done badly (notwithstanding actual performance) and being asked to answer the same questions again. The extent to which answers are

subsequently changed measures this. The scoring of these assessments has changed in response to feedback. Singh & Gudjonsson (1987) changed the scoring of shift to include shifting of responses to non-leading questions, Clare et al. (1994) recommended that the scoring of recall should include ½ points for partly correct answers (implicitly recognising that some elements include more than one 'distinct' idea) and Gudjonsson & Clare (1995) recommend scoring confabulation for distortions (misrepresentations of information in the story) and fabrications (unrelated to elements in the story) separately. It is therefore best to view the assessment as still developing. While the inter-rater reliability for the scale is strong, Gudjonsson (1997) accepts that potential for scoring errors remains, but argues that this is less likely with the detailed scoring criteria in the manual. It is therefore unfortunate that this manual contains at least one clear mistake (the omission of 'bicycle' from scoring, p.40) and that the published recording forms for the GSS1 contain a major error for Q.19 "Were the assailants armed with knives?" as "or guns" should also be included because this is a false alternative question.

Nevertheless a number of studies demonstrate the validity of these scales, showing for example that 'yield' and 'shift' measure distinct concepts (Gudjonsson, 1992), that they can discriminate between 'false confessors' and resisters (Gudjonsson, 1991), and that the scores are negatively correlated with memory and intelligence (Gudjonsson & Clare, 1995).

It is very significant that the GSS has become acceptable for presentation as expert evidence in court. It has been used in several high profile English cases

(Gudjonsson, 1992) as well as in the Scottish system (Rooney, 1996; Carlin & Cooke, 1996).

INTERROGATIVE SUGGESTIBILITY AND PEOPLE WITH LEARNING DISABILITIES

The assessment of the interrogative suggestibility of people with learning disabilities is of particular interest in view of the vulnerabilities discussed above. It may be relevant in challenging confessions which may have arisen from leading questions (yield) or which have followed pressure to change answers (shift). It is also relevant in relation to how potential witnesses may perform in court in that the potential for suggestible responding and importance of appropriate questioning to avoid confusion can be stressed. It is interesting to note that the constraints now placed on police interviewing do not apply to lawyers in court (Pollard, 1998) where the use of leading questions and other disruptive strategies are often used to challenge witnesses (Carson, 1990). The author is aware of one case (Whoriskey, 1994) where information about the suggestibility of a witness was led to the jury by an expert witness before the witness herself gave evidence, but this is unusual and likely to be challenged. It is suggested that professionals should be challenging the view that people with learning disabilities are not credible witnesses (Diesfeld, 1996). To this end Procurators Fiscal in Scotland, have been advised how best to involve such individuals within the criminal justice system (Bull & Cullen, 1992), using a specific four phase approach to witnesses, involving i. developing rapport, ii. free narrative account, iii. questioning in order of preference – a) open-ended

questions b) specific yet non-leading questions c) closed questions d) leading questions, and iv. Closing the interview.

The potential for suggestible responding in general of people with learning disabilities is well recognised in the literature (Chiswick, 1990; Ericson et al., 1994; Bull, 1995). However, this does not reflect a new phenomenon. Pear & Wyatt (1914) compared groups of learning disabled and non-disabled teenagers' recollection of a staged event and responses to questions about it. As expected, this showed poorer recall, poorer sequencing of events, and increased vulnerability to suggestible questions (including similar types to those later used by Gudjonsson) in the learning disabled groups. Of particular interest was the observation that their accuracy was strongly influenced by a tendency to answer every question, even when not understood.

This tendency has been reported in a number of studies (Sigelman, 1981, 1982; Ericson et al.,1994), which have highlighted a trend towards affirmative responses (ie acquiescing) particularly to yes/no questions. Although more recent reports (Mattika & Vesala, 1997) have not found such a strong effect, care is still required when questioning people with learning disabilities.

Gudjonsson (1992, p.2) argues the main difference between acquiescence and suggestibility "is that, with regard to acquiescence, the questions are not structured in a such a way as to specifically suggest the wanted or expected answer, which is the case with suggestibility." However, given that the expected answer in 10 of the 15 leading questions in the GSS is "yes" the validity of this distinction in relation to

Yield to leading questions is debatable (and even the remaining false alternative questions are scored as "yielding" if answered "yes").

Four main studies have reported the assessment of suggestibility in people with learning disabilities using the Gudjonsson Scales. Tully & Cahill (1984) used a staged event observed by a sample of learning disabled and non-disabled people who were subsequently interviewed by police. In addition to showing numerous inadequate questioning techniques which prompted erroneous responses, they also tested participants on the GSS1, showing higher suggestibility scores for the learning disabled group. However, their "mentally handicapped groups" included one with IQ's between 67-90, and is therefore of limited use. Furthermore, they failed to distinguish between yield and shift scores making accurate comparison with later studies difficult. Of greater use are the studies by Clare & Gudjonsson (1993) and Gudjonsson & Clare (1995) which clearly show people with learning disabilities to have significantly higher suggestibility scores on the GSS2 and are used to provide norms in the GSS Manual (Gudjonsson, 1997). However, the strongest difference is in relation to yield rather than shift. A similar pattern was found by Cardone & Dent (1996) who adapted the GSS2 in their study by presenting 17 pictorial slides along with the narrative, and using three different questioning strategies. It may be that for some people with learning disabilities, yield scores reflect acquiescence rather than suggestibility. Repeating recall after questioning would assist in identifying whether the led information had been integrated into memory. This will be tested in the accompanying study.

Cardone & Dent also found that the visual enhancement of the narrative reduced yield scores, but had little influence on shift. The limitations of the verbal bias of the GSS were recognised by Gudjonsson (1984, p.312): "The story that provides the basis for the interrogation context is presented verbally for the sake of simplicity and convenience. Most human testimony is however based on visually-perceived material. Future research needs to establish, to what extent, if at all, suggestibility is influenced by the content of interrogation context and mode of presentation." The GSS has also been criticised on this basis by Sharrock (1988). It would appear that the Cardone & Dent study is the only one to have taken up Gudjonsson's research suggestion, but it is not clear how far the slides used in this study focussed on certain aspects of the narrative nor of how much information was contained within them. The study which follows investigates the impact of presenting a task similar to the GSS comparing a video version of the narrative with the standard presentation. While this is not the same as using events such as Tully & Cahill (1984) it does mean that a standard, comparable, visual presentation, which includes additional irrelevant information such as occurs naturally, can be utilised in individual assessment and may provide a more valid method of assessing suggestibility.

REFERENCES

Baldwin, J. & McConville, M. (1980). Confessions in Crown Court Trials. *Royal Commission on Criminal Procedure Research Study No.5.* HMSO: London.

Baroff, G. S. (1996). The Mentally Retarded Offender. In J.W. Jacobson & J.A. Mulick (Eds.), *Manual Of Diagnosis And Professional Practice In Mental Retardation*, (pp. 311-321). American Psychological Association.

Baldwin, J. (1993). Police Interview Techniques Establishing Truth Or Proof? *Brit J Criminol*, **33**, 325-352.

Binet, A. (1900). La Suggestibilite. Paris: Doin & Fils.

British Medical Association & The Law Society, (1995). *Assessment Of Mental Capacity Guidance For Doctors And Lawyers*. BMA & Law Society: London.

Brown, H., Egan-Sage, E., Barry, G. & McKay, C. (1996). *Towards Better Interviewing A Handbook For Police Officers And Social Workers On The Sexual Abuse Of Adults With Learning Disabilities*. NAPSAC Need To Know Series.

Brown, H. Stein, J. & Turk, V. (1995). Report Of A Second Two Year Incidence Survey On The Reported Sexual Abuse Of Adults With Learning Disabilities: 1991 And 1992. *Ment Hand Res*, **8**, 3-24.

Bull, R. (1995). Interviewing People With Communicative Disabilities. In R. Bull & D.Carson (Eds.), *Handbook Of Psychology In Legal Contexts*. Chichester: Wiley.

Bull, R. & Cullen, C. (1992). *Witnesses Who May Have Mental Handicaps.* Edinburgh: Crown Office Document.

Cardone, D. & Dent, H. (1996). Memory And Interrogative Suggestibility: The Effects Of Modality Of Information Presentation And Retrieval Conditions Upon The Suggestibility Scores Of People With Learning Disabilities. *Leg Criminol Psychol*, **1**, 165-177.

Carlin, M.T. & Cooke, D.J. (1996). Competence To Determine 'Protected Person' Status Under The Mental Health (Scotland) Act (1984). *Expert Evid*, **5**, 58-60.

Carson, D. (1989). Prosecuting People With Mental Handicaps. *Crim L R*, 87-94.

Carson, D. (1990). *Professionals And The Courts A Handbook For Expert Witnesses*. Birmingham: Venture Press.

Chiswick, D. (1990). Fitness To Stand Trial And Plead, Mutism And Deafness. In P. Bowden & R. Bluglass (Eds.), *Principles And Practice Of Forensic Psychiatry*. Livingston.

Clare, I.C.H. & Gudjonsson, G.H. (1992). Devising And Piloting An Experimental Version Of The "Notice To Detained Persons". *The Royal Commission On Criminal Justice Research Study No.7.* HMSO: London.

Clare, I.C.H. & Gudjonsson, G.H. (1993). Interrogative Suggestibility, Confabulation, And Acquiescence In People With Mild Learning Disabilities (Mental Handicap): Implications For Reliability During Police Interrogations. *Brit J Clin Psychol*, **32**, 295-301.

Clare, I.C.H. & Gudjonsson, G.H. (1995). The Vulnerability Of Suspects With Intellectual Disabilities During Police Interviews: A Review And Experimental Study Of Decision-Making. *Ment Hand Res*, **8**, 110-128.

Clare, I.C.H., Gudjonsson, G.H., Rutter, S.C. & Cross, P. (1994). The Inter-Rater Reliability Of The Gudjonsson Suggestibility Scale (Form 2). *Brit J Clin Psychol*, **33**, 357-365.

Cooke, D.J. & Philip, L. (1998). Comprehending the Scottish Caution: Do offenders understand their right to remain silent? *Leg Criminol Psychol*, **3**, 13-27.

Craft, M. (1985). Low Intelligence And Delinquency. In M. Craft, J. Bicknell & S. Hollins (Eds.), *Mental Handicap: A Multi-Disciplinary Approach.* Eastbourne: Balliere Tindall.

Cullen, C. (1993). The Treatment Of People With Learning Disabilities Who Offend. In K. Howells & C.R. Hollin (eds.) *Clinical Approaches To The Mentally Disordered Offender*. Chichester: John Wiley.

Diesfeld, K. (1996). Witness Credibility In Cases Of Sexual Abuse Against Adults With Learning Disabilities. *Tizard Learn Dis Rev*, **1**, 35-37.

Ericson, K., Perlman, N. & Isaacs, B. (1994). Witness Competency, Communication Issues And People With Developmental Disabilities. *Develop Dis Bull*, **22**.

Evans, R. (1993). 'The Conduct of Police Interviews with Juveniles'. *Research Study No. 8. The Royal Commission on Criminal Justice*. HMSO: London.

Gudjonsson, G.H. (1983). Suggestibility, Intelligence, Memory Recall And Personality: An Experimental Study. *Brit J Psychiat*, **142**, 35-37.

Gudjonsson, G.H. (1984). A New Scale Of Interrogative Suggestibility. *Pers Indiv Diff*, **5**, 303-314.

Gudjonsson, G.H. (1987). A Parallel Form Of The Gudjonsson Suggestibility Scale. *Brit J Clin Psychol*, **26**, 215-221.

Gudjonsson, G.H. (1991). Suggestibility and compliance among alleged false confessors in criminal trials. *Med Sci Law*, **31**, 147-151.

Gudjonsson, G. (1992). The Psychology Of Interrogations, Confessions And Testimony. Chichester: John Wiley & Sons.

Gudjonsson, G.H. (1997). *The Gudjonsson Suggestibility Scales Manual.* Hove: Psychology Press.

Gudjonsson, G.H. & Clare, I.C.H. (1995). The Relationship Between Confabulation And Intellectual Ability, Memory, Interrogative Suggestibility And Acquiescence. *Pers Indiv Diff*, **19**, 333-338.

Gudjonsson, G.H., Clare, I.C.H., Rutter, S.C. & Pearse, J. (1993). Persons At Risk During Interviews In Police Custody: The Identification Of Vulnerabilities. *The Royal Commission On Criminal Justice Research Study No.12.* London: HMSO.

Gudjonsson, G.H. & Clark, N. (1986). Suggestibility In Police Interrogation: A Social Psychological Model. *Soc Behav,* **1**, 83-104.

Gudjonsson, G.H. & Gunn, J. (1982). The Competence And Reliability Of A Witness In A Criminal Court. *Brit J Psychiat*, **141**, 624-627.

Gudjonsson, G.H. & MacKeith, J.A.C. (1988). Retracted Confessions, Legal, Psychological And Psychiatric Aspects. *Med Sci Law*, **28**, 187-194.

Gudjonsson, G.& MacKeith, J. (1994). Learning Disability And The Police And Criminal Evidence Act 1984. Protection During Investigative Interviewing: A Video-Recorded False Confession To Double Murder. *J Foren Psychiat*, **5**, 35-49.

Gunn, M.J. (1990). The Law And Learning Disability. *Int Rev Psychiat*, **2**, 13-22.

Holding, R. (1997). Crime Strikes Disabled At Alarming Rate Most-vulnerable Citizens Get Least Protection. *San Francisco Chronicle*, Monday 20th October, 1997. p.A1.

Howells, K. & Ward, M. (1994). Intellectual Impairment, Memory Impairment, Suggestibility And *Voir Dire* Proceedings: A Case Study. *Med, Sci Law*, **34**, 176-180.

Irving, B. (1980). Police Interrogation: A Case Study Of Current Practice. *Royal Commission On Criminal Procedure Research Study No.2* HMSO London.

Irving, B. & Hilgendorf, L. (1980). Police Interrogation: The Psychological Approach. *Royal Commission On Criminal Procedure Research Study No.1* HMSO London.

Kapardis, A. (1997). Psychology And Law A Critical Introduction. Cambridge University Press.

Kennedy, L. (1988). 10 Rillington Place. London: Gollancz.

Littlechild, B. (1995). Reassessing The Role Of The "Appropriate Adult". *Crim L R*, 540.

Lyall, I., Holland, A.J. & Collins, S. (1995). Offending By Adults With Learning Disabilities And The Attitudes Of Staff To Offending Behaviour: Implications For Service Development. *J Int Dis Res*, **39**, 501-508.

MacEachron, A.A. (1979). Mentally Retarded Offenders: Prevalence And Characteristics. *Am J Ment Defic*, **84**, 165-176.

Matikka, L.M. & Vesala, H.T. (1997). Acquiescence In Quality Of Life Interviews With Adults Who Have Mental Retardation. *Ment Retard*, **35**, 75-82.

McGurk, T., Platton, T. & Gibson, R.L. (1994). Detectives: a job and training needs analysis. *Iss Criminol Leg Psychol,* **21**, 24-31.

McLean, M. (1995). A New Look At Eyewitness Testimony 4. Quality Investigation? Police Interviewing Of Witnesses. *Med Sci Law*, **35**, 116-122.

McNulty, C., Kissi-Deborah, R. & Newsom-Davies, I. (1995). Police Involvement With Clients Having Intellectual Disabilities: A Pilot Study In South London. *Ment Hand Res*, **8**, 129-136.

Morris, P. (1980). Police Interrogation. Review Of Literature. *Royal Commission On Criminal Procedure Research Study No.3.* HMSO: London.

Moston, S. & Stephenson, G.M. (1993a). The Questioning And Interviewing Of Suspects Outside The Police Station. *Royal Commission On Criminal Justice Research Study No.22* HMSO London.

Moston, S. & Stephenson, G.M. (1993b). The Changing Face of Police Interrogation. *J Commun App Soc Psychol*, **3**, 101-115.

Moston, S., Stephenson, G. & Williamson, T.M. (1992). The effects of case characteristics on suspect behaviour during police questioning. *Brit J Psychol*, **32**, 23-40.

Norfolk, G.A. (1997). 'Fitness To Be Interviewed' - A Proposed Definition And Scheme Of Examination. *Med Sci Law*, **37**, 228-234.

Palmer, C. (1996). Still Vulnerable After All These Years. *Crim L R*, 633-644.

Pear, T.H. & Wyatt, S. (1914). The Testimony Of Normal And Mentally Defective Children. *Brit J Psychol*, **3**, 388-419.

Pearse, J. (1995). Police Interviewing: The Identification Of Vulnerabilities. *J Commun App Soc Psychol*, **5**, 147-159.

Perske, R. (1994). Thoughts On The Police Interrogation Of Individuals With Mental Retardation. *Ment Retard*, October (1994).

Pollard, C. (1998). Vulnerable Victims Presentation To The All Party Group To Campaign For People With Learning Disabilities Who Have Been Sexually Abused. *NAPSAC Bull*, **24**, 3-8.

Price, C. & Caplan, J. (1977). The Confait Confessions. London: Boyars.

Rooney, G. (1996). Interrogative Suggestibility. Presentation to B.P.S. Learning Disability Special Interest Group, Gogarburn Hospital.

Rusch, R.G., Hall, J.C. & Griffin, H.C. (1986). Abuse-Provoking Characteristics Of Institutionalised Mentally Retarded Individuals. *Am J Ment Defic*, **90**, 618-624.

Scottish Office (1998). Interviewing People Who Are Mentally Disordered: "Appropriate Adult Schemes". Scottish Office: Edinburgh.

Sharrock, R. (1988). Eyewitness Testimony: Some Implications For Clinical Interviewing And Forensic Psychology Practice. In F.N. Watts (Ed.), *New Developments In Clinical Psychology* Vol.2.

Sigelman, C.K., Budd, E.C., Spanhel, C.L. & Schoenrock, C.J. (1981). When In Doubt, Say Yes: Acquiescence In Interviews With Mentally Retarded Persons. *Ment Retard*, **19**, 53-58.

Sigelman, C.K., Budd, E.C., Winer, J.L., Schoenrock, C.J. & Martin, P.W. (1982). Evaluating alternative techniques of questioning mentally retarded persons. *Am J Ment Defic,* **86**, 511-518.

Singh, K.K. & Gudjonsson, G.H. (1987). The internal consistency of the "shift" factor on the Gudjonsson Suggestibility Scale. *Pers Indiv Diff*, **8**, 265-266.

Sobsey, D. & Doe, T. (1991). Patterns Of Sexual Abuse And Assault. *J Sex Disabil*, **9**, 243-259.

Stewart, A.L. (1997). The Scottish Criminal Courts In Action (2nd. Edition). Edinburgh: Butterworths.

Tully, B. & Cahill, D. (1984). Police Interviewing Of The Mentally Handicapped An Experimental Study. The Police Foundation of Great Britain: London.

White, W.S. (1997). False Confessions And The Constitution: Safeguards Against Untrustworthy Confessions. *Harvard Civil Rights - Civil Lib Law Rev*, **32**, 105-158.

Whoriskey, M.R. (1994). *Personal Communication.*

Williams, C. (1993). Vulnerable Victims? A Current Awareness Of The Victimisation Of People With Learning Disabilities. *Disab Hand Soc*, **8**, 161-171.

Williams, C. (1995). Invisible Victims Crime And Abuse Against People With Learning Difficulties. Jessica Kingsley.

Williamson T.M. (1993). From Interrogation to Investigative Interviewing; Stretegic Trends in Police Questioning. *J Commun App Soc Psychol*, **3**, 89-99.

Wilson, C. & Brewer, N. (1992). The Incidence Of Criminal Victimisation Of Individuals With An Intellectual Disability. *Australian Psychologist*, **27**, 114-117.

Wilson, C. Seaman, L. & Nettelbeck, T. (1996). Vulnerability To Criminal Exploitation: Influence Of Interpersonal Competence Differences Among People With Mental Retardation. *Journal Of Intellectual Disability Research*, **40**, 8-16.

Winter, N. Holland, A.J. & Collins, S. (1997). Factors Predisposing To Suspected Offending By Adults With Self-Reported Learning Disabilities *Psychological Medicine*, **27**, 595-607.

3. MAJOR RESEARCH PROJECT PROPOSAL

Interrogative Suggestibility Of People With A Learning Disability

The Influence Of Mode Of Assessment

Keith M. Bowden

Department of Psychological Medicine, University of Glasgow

Research Supervisor: Professor Colin A. Espie
Department of Psychological Medicine
University of Glasgow

SUMMARY

People with a learning disability may become involved in the Criminal Justice System as a victim, witness or suspect. There is evidence that the courts and police can find it difficult to fully integrate people with a learning disability into this system. It is perceived that this client group may provide unreliable evidence and that they are readily susceptible to manipulation by others. There have been examples of people with a learning disability confessing in police interviews to crimes which they did not commit. This has led to interest in the concept that such individuals are particularly vulnerable to interrogative suggestibility. An assessment technique to attempt to measure the degree to which an individual is suggestible has been developed by Gudjonsson (Gudjonsson Suggestibility Scales 1 & 2) and this has been accepted as evidence in a number of court cases. People with a learning disability have been shown on the test to be more suggestible than non-learning disabled populations. However, it may be that a factor in this is that the design of the test relies on verbal memory ("suggestibility" questions being asked in relation to a short story which the subject has to listen to) which is often poor in people with a learning disability. Only one study has investigated this, showing that recollection of the story was improved, and suggestibility reduced, when the task was enhanced by use of photographic slides. The purpose of the present study is to identify whether presentation of a short story in an audio-visual format on video (and hence slightly more akin to a real-life situation) would enable better recall of the information than the same story in an audio-only format and consequently result in lower suggestibility scores. This will be studied using a matched pair design with both groups receiving exactly the same assessment other than the mode of presentation of the short story.

INTRODUCTION

The Home Office, in the revised Police and Criminal Evidence Act 1984, recognises that people with a learning disability and other 'at risk' groups "...may, without knowing or wishing to do so, be particularly prone in certain circumstances to provide information which is unreliable, misleading or self-incriminating", and that "Special care should therefore always be exercised in questioning such a person, and the appropriate adult involved, if there is any doubt about a person's mental state or capacity" (Home Office, 1991, p.79). This advice relates to any such person interviewed by the police whether victim, witness or suspect. In addition to this being important in discovering the facts of a case, the possibility of subsequent legal proceedings must be taken into consideration. Concern has been expressed that victims who have a learning disability often receive a limited response from criminal justice services (Williams, 1995). For example, despite increased awareness of this group's vulnerability to sexual abuse (Turk & Brown, 1993) the number of successful prosecutions for such offences remains very low (Carson, 1994). Whilst a number of factors may be involved in this, concerns about the credibility, reliability and capacity of people with a learning disability to give evidence in court probably play a significant role in limiting participation (Gudjonsson, 1995, Clare & Gudjonsson, 1995). These issues have been widely researched in relation to the evidence of children, including children who have a learning disability (Dent, 1992) and a number of changes have been made in legal systems as a result (Spencer & Flin, 1993).

With regard to adults with a learning disability the main concession to their special needs has been the introduction of the use of "Appropriate Adults" to facilitate police interviewing. This was initially introduced in England and Wales in 1984 (Home Office, 1991) where it is a requirement that 'at risk' people (particularly if a suspect) have an Appropriate Adult present at interview to advise, facilitate communication and ensure fairness (Nemitz & Bean, 1994). There is evidence that a higher than expected number of people with a learning disability may be interviewed as suspects (Clare & Gudjonsson, 1995, Lyall et al., 1995). However, there are a number of difficulties with the scheme including the fact that many police officers are unable to recognise when an Appropriate Adult is required (Gudjonsson et al., 1993, Pearse,

1995) and that there are few restrictions on who can act as an Appropriate Adult. In Scotland there is no requirement for an Appropriate Adult to be used, although it is recommended as good practice (Scottish Home & Health Department, 1990) and some areas have made attempts to integrate it into practice (Fife Constabulary et al., 1992). However the role is more limited than that in England (McKay, 1991). It is thought that the introduction of Appropriate Adults was influenced by a number of cases of false confessions made by people with a learning disability (Gudjonsson, 1992).

Although it was recognised last century that potentially false confessions to crime "may arise from a derangement of intellect" (p.576, Burnett, 1811), it is only comparatively recently that attempts have been made to improve the interviewing of people with a learning disability within the criminal justice system (Bull & Cullen, 1992, Bull, 1995, Clare & Gudjonsson, 1993). Differences in the Scottish and English legal systems are again potentially significant as Scots law does not allow conviction on confession evidence alone, whereas this is a possibility under English law. English law however, gives the suspect the right to have a solicitor present at interview, whereas Scots law only gives the right to consult with a solicitor before trial and solicitors are therefore not usually present during police interviews (Stewart, 1997). Concerns regarding such suspects include the provision of inaccurate information as a result of acquiescence, compliance, confabulation and suggestibility (Gudjonsson, 1983, Clare, & Gudjonsson, 1993, Howells & Ward, 1994, Sigelman et al., 1981). The increasing acceptance of psychological evidence in the courts (Thornton, 1995) has resulted in attempts to measure these areas. Particularly influential has been the work of Gudjonsson on interrogative suggestibility, which has been defined as "the extent to which, within a closed social interaction, people come to accept messages communicated during formal questioning, as the result of which their subsequent behavioural response is affected" (Gudjonsson & Clark, 1986). This has led to the development of the Gudjonsson Suggestibility Scales (described below) which are designed to measure two distinct susceptibilities: to "yield" to "leading questions", and to "shift" answers in response to "negative feedback" (Gudjonsson, 1987). The reliability and structure of these scales have been confirmed (Gudjonsson, 1992). It has been shown that there is a negative

relationship between intellectual functioning and interrogative suggestibility (Gudjonsson, 1992). The particular susceptibility of people with a learning disability compared to a non-disabled group to interrogative suggestibility, as measured by the scale, has been shown experimentally (Clare & Gudjonsson, 1993) and the results of assessments using the scale have been accepted by the courts (Gudjonsson, 1992, Howells & Ward, 1994).

It is recognised that people with a learning disability frequently have memory deficits (Clarke & Clarke, 1974). The memory aspect of the task in the Gudjonsson Suggestibility Scales is therefore likely to particularly disadvantage people with a learning disability. It has been shown that recall of an event by people with a learning disability can be improved (at a cost of increased confabulation) by the use of the cognitive interview technique (Brown & Gieselman, 1990) which includes the utilisation of mental images. The current design of the G.S.S. is very dependent on verbal memory skills. It is unusual in real life for people only to receive information in the auditory modality, so usually when people are being interviewed about an event they can access memories in a range of sensory modalities. This study will investigate if there is a difference in the assessment of interrogative suggestibility in people with a learning disability as a consequence of the modality of presentation of the initial task (audio v. audio-visual). Only one previous study has investigated this issue (Cardone & Dent, 1996) utilising a photographic slide presentation. This showed improved recall and reduced suggestibility when the G.S.S. presentation was enhanced by associated pictures. However, it is possible that the use of still photographs may have provided very specific cues to responses. The current study will present the audio-visual material on video to try to make the assessment more like a real-life situation.

AIMS AND HYPOTHESES

The aim of the present study is to identify whether presentation of a short story in an audio-visual format would facilitate improved recall of the information than the same

story in an audio-only format and consequently result in lower suggestibility scores for people with a learning disability.

It is hypothesised that

1) Immediate and delayed recall scores will be greater for the group receiving the audio-visual presentation of the story compared to the group given the audio only presentation.

2) Participants in the audio only presentation group will show higher suggestibility scores than the audio-visual presentation group.

3) There will be a positive correlation between level of intellectual functioning and recall scores.

4) There will be a positive correlation between performance on the Wechsler Memory Scale – Revised and recall scores.

PLAN OF INVESTIGATION

Participants

Participants will be adults who have a learning disability and who currently receive a service from Greater Glasgow Community and Mental Health NHS Trust. It is anticipated that 32 participants will participate (16 in each of two experimental groups). Participants will be required to be able to communicate verbally, have no significant uncorrected visual or hearing difficulties and will be able to give consent to participation in the study.

Measures

Wechsler Adult Intelligence Scale – Revised: The W.A.I.S.-R. provides an indication of level of general cognitive functioning and is the most widely used measure by psychologists of intellectual functioning (British Psychological Society, 1991). Its' validity and reliability are well established (Wechsler, 1981, 1986).

Wechsler Memory Scale – Revised: The W.M.S.-R. provides a measure of overall memory functioning and is often used clinically in the assessment of memory (Atkinson, 1991). It also has well established validity and reliability (Wechsler, 1987).

Gudjonsson Suggestibility Scale – version 2: In the G.S.S.-2 (Gudjonsson, 1987) the subject is asked to listen to a short story. They are then asked to say all that they can remember of the story. This is repeated 50 minutes later. The subject is then asked 20 questions about the story, 15 of which are 'leading' questions. The number of leading questions answered incorrectly is termed "Yield". The subject (irrespective of actual performance) is told that they have done badly and that the questions will be repeated. The number of questions to which the subject subsequently changes their answer is termed "Shift". The "Yield" and "Shift" scores are combined to give a total suggestibility score. The reliability and validity of the Gudjonsson scales have been established in a number of studies (Gudjonsson, 1992). One addition to the standard protocol will be that of a second Delayed Free Recall condition at the end of the task to allow identification of whether incorrect responses to leading questions become incorporated in the participants subsequent free account.

Experimental Suggestibility Scale: This will be devised for the current study and will follow the format of the Gudjonsson Scales using a different story. Two forms of the story will be developed; the first will be presented on audio tape, as in the G.S.S., the second will be enhanced by the same story being presented on video tape with an associated visual representation of the information.

Design and Procedure

Potential participants will initially be identified by care staff. They will subsequently be approached by the researcher who will explain and describe the study as research into memory and the ability to answer questions about a story. The participants will not be informed that an additional (main) purpose is to investigate interrogative suggestibility as this information would be likely to influence their responses.

The study will consist of two phases. In Phase One all participants in the study will be assessed on the G.S.S.-2 and W.A.I.S.- R.. This will use the standard presentation of the G.S.S.-2, with the addition of the second Delayed Free Recall condition as indicated above. The W.A.I.S.-R. will be completed during the period between Initial and Delayed Recall. This is represented in Figure 1.

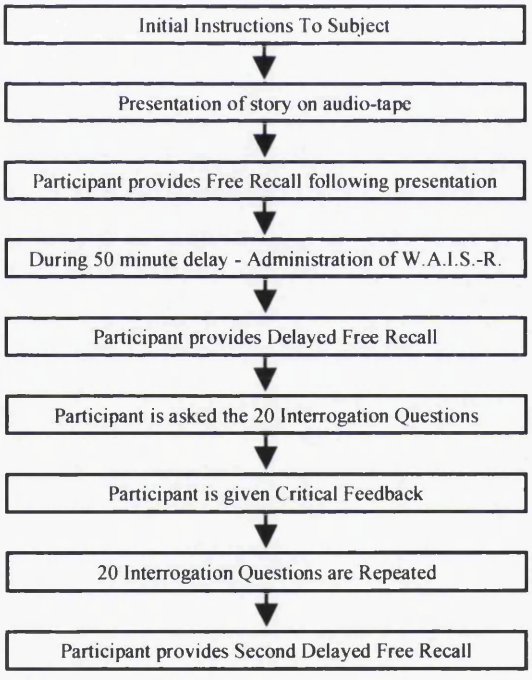


Figure 1. Procedure for Phase One of Study
Presentation of Gudjonsson Suggestibility Scale and W.A.I.S.-R.

Following completion of Phase One matched pairs of participants will be identified (on the basis of, in order of priority, G.S.S. score, I.Q. and gender). One member of

each pair will then randomly (by toss of a coin) be allocated to the audio-only group (Group A) and the other to the audio-visual group (Group B).

In Phase Two the same procedure as in Phase One will be followed using the new Experimental Suggestibility Scale in place of the G.S.S. and the Wechsler Memory Scale during the delay period as shown in Figure 2..

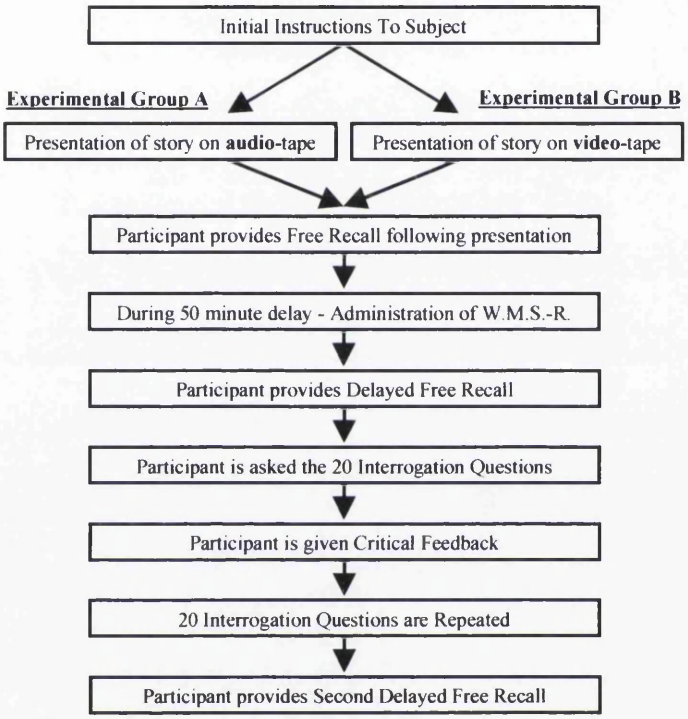


Figure 2. Procedure for Phase Two of Study
Presentation of Experimental Suggestibility Scale and W.M.S.-R.

Participants will be offered the opportunity of debriefing regarding the full purpose of the study once all assessments have been completed.

Settings and equipment

Participants will be assessed in the researcher's office (or a similar setting) as this would be the type of setting in which such an assessment would be most likely to take place clinically for the purpose of a court report. The video recording will be shown on a standard television screen. The tape recording played on a standard

cassette player. Participants responses will be noted at the time and recorded on a second cassette player to ensure that no responses are missed.

DATA ANALYSIS

Data will be stored and analysed on computer using the SPSS/PC statistical package. Differences between the groups will be analysed using a one-tailed t-test. The association between interrogative suggestibility, general intellectual functioning and memory will be investigated using correlational methods (such as the Pearson product moment correlation coefficient).

PRACTICAL APPLICATIONS

If the hypotheses are confirmed this may have implications for the method by which the interrogative suggestibility of people with a learning disability is assessed for court proceedings as the current method may overestimate the suggestibility of such individuals and could potentially exclude people from involvement in the judicial process unfairly. This will be of relevance in relation to potential witnesses and individuals accused of an offence.

TIMESCALES

It is anticipated that it will be possible to carry out all interviews within a 4 month period.

ETHICAL APPROVAL

Ethical approval will be sought from the Greater Glasgow Community and Mental Health Services N.H.S. Trust Research Ethical Committee.

REFERENCES

Atkinson, L. (1991). Concurrent use of the Wechsler Memory Scale – Revised and the W.A.I.S.-R.. *British Journal of Clinical Psychology*, **30**, 87-90.

British Psychological Society (1991). *Mental Impairment and Severe Mental Impairment A Search For Definitions.* Leicester: British Psychological Society.

Brown, C. & Gieselman, R.E. (1990). Eye-witness testimony of mentally retarded: effect of the cognitive interview. *Journal of Police and Criminal Psychology,* **6**, 14-22.

Bull, R. & Cullen, C. (1992). *Witnesses who may have mental handicaps.* Edinburgh: Crown Office Document.

Bull, R. (1995). Interviewing People with Communicative Disabilities. In: *Handbook of Psychology in Legal Contexts* (Eds. R. Bull & D. Carson), Chichester: Wiley.

Burnett, J. (1811). The Criminal Law of Scotland. Quoted in: Griffiths, D.B. (1994). *Confessions.* Edinburgh: Butterworths

Carson, D. (1994). The law's contribution to protecting people with learning disabilities from physical and sexual abuse. In: *People With Learning Disabilities At Risk Of Physical Or Sexual Abuse.* (Eds. J. Harris & A. Craft). B.I.L.D. Seminar Papers No.4.

Clare, I.C.H. & Gudjonsson, G.H. (1993). Interrogative suggestibility, confabulation, and acquiescence in people with mild learning disabilities (mental handicap): Implications for reliability during police interrogations. *British Journal of Clinical Psychology,* **32**, 295-301.

Clare, I.C.H. & Gudjonsson, G.H. (1995). The Vulnerability of Suspects with Intellectual Disabilities During Police Interviews: A Review and Experimental Study of Decision-Making. *Mental Handicap Research,* **8**, 110-128.

Clarke, A.M. & Clarke, A.D.B. (1974). Experimental studies: an overview. In: *Readings from Mental Deficiency The changing outlook.* (Eds. A.M. Clarke & A.D.B. Clarke). London: Methuen.

Dent, H. (1992). The Effects of Age and Intelligence on Eyewitnessing Ability. In: *Children as Witnesses* (Eds. H. Dent & R. Flin). Chichester: Wiley.

Fife Constabulary, Fife Health Board, Fife Regional Council Social Work Department and Procurator Fiscal (1992). *Facilitating police interviewing of people with a mental handicap: role of appropriate adult. Practice Guidelines.* Glenrothes: Fife Constabulary.

Gudjonsson, G.H. (1983). Suggestibility, intelligence, memory recall and personality: An experimental study. *British Journal of Psychiatry,* **142**, 35-37.

Gudjonsson, G.H. (1987). A parallel form of the Gudjonsson Suggestibility Scale. *British Journal of Clinical Psychology,* **26**, 215-221.

Gudjonsson, G.H. (1992). *The Psychology of Interrogations, Confessions and Testimony.* Chichester: Wiley.

Gudjonsson, G.H. (1995). The Vulnerabilities of Mentally Disordered Witnesses. *Medicine, Science & the Law,* **35**, 101-106.

Gudjonsson, G., Clare, I., Rutter, S. & Pearce, J. (1993). Persons at Risk During Interviews in Police Custody: The Identification of Vulnerabilities. *Research Study Number 12 for The Royal Commission On Criminal Justice.* London: H.M.S.O..

Gudjonsson, G.H. & Clark, N. (1986). Suggestibility in police interrogation: A social psychological model. *Social Behaviour,* **1**, 83-104.

Home Office (1991). *Police and Criminal Evidence Act 1984 (s.66). Codes of Practice.* London: H.M.S.O.

Howells, K. & Ward, M. (1994). Intellectual Impairment, Memory Impairment, Suggestibility and *Voir Dire* Proceedings: a case study. *Medicine, Science & the Law,* **34**, 176-180.

Lyall, I., Holland, A.J. & Collins, S. (1995). Offending by Adults with Learning Disabilities: Identifying Need in One Health District. *Mental Handicap Research,* **8**, 99-109.

McKay, C. (1991). *Sex, laws and red tape - Scots law, personal relationships and people with learning difficulties.* Glasgow: S.S.M.H.

Nemitz, T. & Bean, P. (1994). The Use of the 'Appropriate Adult' Scheme (A Preliminary Report). *Medicine, Science & the Law,* **34**, 162-166.

Pearse, J. (1995). Police Interviewing: The Identification of Vulnerabilities. *Journal of Community and Applied Social Psychology*, **5**, 147-159

Sigelman, C.K., Budd, E.C., Spanhel, C.L. & Schoenrock, C.J. (1981). When in doubt, say yes: Acquiescence in interviews with mentally retarded persons. *Mental Retardation,* **19**, 53-58.

Scottish Home & Health Department (1990). *Interviewing of Mentally Handicapped or Mentally Ill Persons.* Scottish Home & Health Department Circular (Police (CC) 2/1990).

Spencer, J.R. & Flin, R. (1993). *The Evidence of Children The Law and the Psychology (2nd.edition).* London: Blackstone.

Stewart, A.L. (1997). *The Scottish Criminal Courts In Action (2nd. Edition).* Edinburgh: Butterworths.

Thornton, P. (1995). The Admissibility of Expert Psychiatric and Psychological Evidence. Judicial Training. *Medicine, Science & the Law,* **35**, 143-149.

Turk, V. & Brown, H. (1993). The sexual abuse of adults with learning disabilities: results of a two year incidence survey. *Mental Handicap Research,* **6**, 193-216.

Wechsler, D. (1981, 1986). *WAIS-R Manual.* New York: Psychological Corporation.

Wechsler, D. (1987). *Wechsler Memory Scale – Revised.* New York: Psychological Corporation.

Williams, C. (1995). *Invisible victims crime and abuse against people with learning disabilities.* London: Jessica Kingsley.

4. MAJOR RESEARCH PROJECT PAPER

Interrogative Suggestibility Of People With A Learning Disability

The Influence Of Mode Of Assessment

Keith M. Bowden

Department of Psychological Medicine, University of Glasgow

Research Supervisor: Professor Colin A. Espie
Department of Psychological Medicine
University of Glasgow

Written in accordance with guidelines for submission to
Legal and Criminological Psychology (Appendix 4.1)

Interrogative Suggestibility Of People With A Learning Disability – The Influence Of Mode Of Assessment

Running head –

Interrogative Suggestibility and Learning Disability – Mode of Assessment

ABSTRACT

Objectives. The study examined whether presentation of a task similar to the Gudjonsson Suggestibility Scales (GSS) in an audio-visual as opposed to usual audio modality, increased the recall of the initial task and reduced suggestible responses. The utility of introducing a further element to the standard GSS presentation of an additional recall phase was tested to determine whether this might facilitate a clearer distinction between suggestible and acquiescent responding.

Methods. 26 residents of a learning disability hospital were assessed on the GSS2 and then matched to pairs according to suggestibility. 12 pairs subsequently completed a second, new, suggestibility task (KBS) based on the GSS design. One of each pair watched the initial story on video, the other only listened to the soundtrack. An extra story recall task was included following questioning in both phases, allowing calculation of the influence of the questions on recall content.

Results. No significant differences were found for total recall or suggestibility according to mode of presentation, although some of the patterns of recall may be worthy of further investigation. The inclusion of the extra recall task showed that 21 of the 26 participants included information only led in questions as having been part of the initial story.

Conclusions. No overall effect for modality was found on this occasion, but there is an indication that patterns of recall were affected. The number of participants who were led by the questions has implications for a range of interview situations.

INTRODUCTION

A person with a learning disability may become involved in the Criminal Justice System as a victim, witness or suspect, but there is evidence that it can be difficult to fully integrate such individuals into the system (Williams, 1995). It is often perceived that people with a learning disability may provide unreliable evidence and are readily susceptible to manipulation (Heal & Sigelman, 1995; Perlman, Ericson, Esses & Isaacs, 1994). Particular concerns include the provision of inaccurate information as a result of acquiescence, compliance, confabulation and suggestibility (Clare & Gudjonsson, 1995; Howells & Ward, 1994).

The concept of interrogative suggestibility, defined as "the extent to which, within a closed social interaction, people come to accept messages communicated during formal questioning, as the result of which their subsequent behavioural response is affected" (Gudjonsson & Clark, 1986), and the assessment of this, has been accepted in court to determine the credibility of witnesses(Gudjonsson, 1992). This has been particularly influenced by the development of the Gudjonsson Suggestibility Scales which measure two distinct susceptibilities: to "**yield**" to "leading questions", and to "**shift**" answers in response to "negative feedback" (Gudjonsson, 1984). A number of studies, (Gudjonsson, 1992), confirm the reliability and structure of these scales. People with learning disabilities have been shown experimentally to score more highly on these Scales than a non-disabled group (Clare & Gudjonsson, 1993), and it has been proposed that this reflects greater suggestibility, i.e. accepting the message, rather than acquiescence. However, the high scoring on 'yield' as

opposed to 'shift' could reflect yea-saying rather than suggestibility (Bowden, 1998).

It is recognised that people with a learning disability frequently have memory deficits (Clarke & Clarke, 1974) and some memory components of these Scales may disadvantage people with learning disabilities. It has been shown that their recall can be improved (at a cost of increased confabulation) by using the cognitive interview technique (Brown & Gieselman, 1990) which includes the utilisation of mental images. The design of the G.S.S. is very dependent on verbal memory skills. In reality people rarely receive information only in the auditory modality, so during interviews they can potentially access a range of sensory memories. This has been partially investigated by Cardone & Dent (1996), who showed improved memory and a reduction in yield when the G.S.S. recall task was enhanced by a slide presentation.

The current study investigates whether there is a difference in the assessment of interrogative suggestibility in people with a learning disability as a consequence of the modality of presentation of the initial task when the material is presented in an audio-visual format using a video-recording. This is intended to provide a more natural examination of the influence of modality as the effects shown by using slides may depend on the salience of the information they contain. The study also includes an addition to the format of the Gudjonsson Scales in an attempt to ratify the claim that suggestibility rather than acquiescence is being measured.

AIMS AND HYPOTHESES

The aim of the present study is to identify whether presentation of a short story in an audio-visual format would facilitate improved recall of the information compared with the same story in an audio-only format and consequently result in lower suggestibility scores for people with a learning disability.

It is hypothesised that

1. Immediate and delayed recall scores will be greater for the group receiving the audio-visual presentation of the story.
2. Participants in the audio only presentation group will show higher suggestibility scores.
3. There will be a positive correlation between level of intellectual functioning and recall scores.
4. There will be a positive correlation between performance on the Wechsler Memory Scale – Revised and recall scores.
5. New information led in the questions will be incorporated in subsequent recall of the original information.

METHOD

Participants

Participants were 26 residents of a large learning disability hospital aged from 24 to 76 years old (mean 45.5, S.D. 14.8). Their I.Q. ranged from 47 to 75 (mean 60.38,

S.D. 7.96) and they comprised 21 men and 5 women. Participants had been identified via a letter sent to all Ward Managers providing brief details of the study and asking them to identify residents who might be willing and able to participate and had no significant uncorrected auditory or visual difficulties, or degenerative organic condition. Ethical approval had been received from the appropriate committee and permission to approach residents was obtained from their Consultant. Those suitable were approached and informed consent obtained. 36 residents were identified initially: 5 declined to participate when approached by ward staff; 2 declined at the stage of obtaining formal consent; 2 were identified as unsuitable by the author, and 1 withdrew consent midway through Phase 1. One of the Phase 1 participants subsequently withdrew consent for Phase 2, therefore only 25 participants completed both phases (meaning only 12 pairs could be compared in Phase 2).

Measures

Wechsler Adult Intelligence Scale - Revised. The WAIS-R provides an indication of the level of general cognitive functioning and is the most widely used measure by psychologists of intellectual functioning (British Psychological Society, 1991), its validity and reliability being well-established (Wechsler, 1981, 1986). The design of the current study allowed 50 minutes for this assessment, therefore a short form was used consisting of the following sub-tests: Information, Vocabulary, Comprehension, Similarities, Picture Completion, Picture Arrangement, Block Design, and Object Assembly. These were selected as they had been used in previous learning disability suggestibility studies (Cardone & Dent, 1996; Clare &

Gudjonsson, 1993). Verbal, Performance and Full-scale I.Q. equivalents were pro-rated.

Wechsler Memory Scale Revised. The WMSR provides a measure of overall memory functioning and is frequently used clinically in the assessment of memory (Watkins, Campbell, Nieberding & Hallmark, 1995). It also has well-established validity and reliability (Wechsler, 1987). All sub tests of the WMSR were completed other than logical memory I and II as these resemble the recall component of the suggestibility story and could have caused interference.

Gudjonsson Suggestibility Scale Version 2. As indicated earlier, the GSS2 (and its parallel form GSS1) have become accepted for expert evidence use in court and are well described in the literature, showing evidence of good reliability and validity (e.g. Gudjonsson, 1992, 1997). In the GSS2, the participant is asked to listen to a short story and then to repeat all they can remember immediately (Immediate Recall) and again approximately 50 minutes later (Delayed Recall). The story consists of 40 separate ideas and the number of ideas recalled is scored. Recently scoring has been revised to include ½ points where an idea is partly recalled (Clare, Gudjonsson, Rutter & Cross, 1994; Gudjonsson, 1997). Following delayed recall, the participant is asked 20 questions about the story, 15 of which are leading. The number of leading questions answered positively is scored as Yield 1. Irrespective of performance, the participant is told that they have done badly (negative feedback) and that the questions will be repeated. The total this time is termed Yield 2, and in addition, the number of questions to which the participant changes their answer is scored as Shift. Yield 1 and Shift scores are combined to give a Total

Suggestibility score. Recall scores can also be calculated in relation to the number of Distortions (change to an 'idea' in the story) and Fabrications (introduction of a new element) as a measure of degree of Confabulation. The present study includes an additional element in that following the second set of questions, the participant was asked for a further recall (Extra Recall) of the story, to identify whether elements of leading questions become incorporated in the subsequent account.

Experimental Suggestibility Scale – (K.B.S.). This was devised for the current study and is based on the Gudjonsson Scales, but was designed to allow the content of the story to be amenable to both auditory and audio-visual representation. It utilises two of the three criteria reported by Gudjonsson (1987) in the design of the GSS2: "(a) that the story was of similar length to that of GSS1: that is, contained 40 distinct ideas that could be objectively scored; (b) that the story involved a distinct event and included men, women and children;" (p.216). The third criterion, of the story being suitable for use overseas, was considered unnecessary. The content of the story was strongly influenced by the need for it to be easily represented on video whilst containing elements which would allow leading questions to be asked, but which did not relate to visual cues unavailable to the audio only group. The story was designed to relate an incident about which participants might conceivably be interviewed as witnesses, but which was unlikely to cause distress. The following story was used:

> [1]One afternoon/[2]Alison Brown/[3] parked her car/[4] in the street/[5] outside her house, /[6]which was for sale. /[7] She had been at the local hospital/[8] where she worked, /[9] to visit a friend/[10] who had broken her leg. /[11] Her four year old/[12] daughter, /[13] Carol, /[14] had travelled in the car with her. /[15] When they got out of the car/[16] Alison failed to notice/[17] that she had left the car window open/[18]

because she was hurrying to get into the house/[19] to watch her favourite television programme. /[20] Later that evening/[21] a small man/[22] wearing a red jacket/[23] walked past the car/[24] and noticed that the window was open. /[25] He put his arm through the window, /[26] removed a cassette tape/[27] and hurried away. /[28] Some time later/[29] he returned to the vehicle, /[30] reached in to unfasten the lock/[31] and got in to the driver's seat. /[32] He crouched down low/[33] while he started the engine, /[34] then drove away quickly. /[35] Hearing the noise, /[36] Alison came out of the house/[37] and was very distressed/[38] to discover that her car had been stolen. /[39] She rushed back inside/[40] and phoned the police.

Although not intended as a parallel form, it was important that the general nature of the KBS should be similar to the Gudjonsson Scales and therefore the readability of the experimental scale, using the Flesch Index (Flesch, 1948) is at the 7.2 grade level which is similar to that of the Gudjonsson Scales which are at grades 7.1 and 8.8. Sticht & James (1984) have indicated that readability and comprehensibility are equivalent up to 6th grade level, after which reading becomes more efficient, therefore the comparable readability scores mean it is unlikely that there is a major difference in level of comprehension for the KBS and Gudjonsson Scales.

The Immediate Recall score for the KBS was also compared with that of the GSS2 in a pilot study using 10 colleagues who completed the Immediate Recall task for both scales (with presentation order balanced). The correlation between the scales for immediate recall score was 0.72 (p=0.018) which compares favourably with that reported for GSS1 and GSS2 of 0.77. However, the mean immediate recall for KBS of 23.1 (S.D. 3.3) was higher than that for GSS2 of 20.9 (S.D.) suggesting that KBS is easier to recall, although not to a significant degree (t=1.72, 9 d.f., p=0.12).

The video presentation consisted of a narration of the story, recorded concurrently with the action, which meant that background noise could be heard. The main elements of the story shown visually were the car arriving, participants getting out and rushing into the house, the man taking the tape, returning and stealing the car, the woman coming out of the house before returning inside to be seen, through the window, phoning. Elements such as having visited the hospital, were not represented visually. The questions used were based on the same number and format as those in the GSS, i.e. Non-leading – "Was the woman called Alison Brown?", Leading – "Did Alison hurt her foot when she ran to phone the police?, Affirmative – "Did the man use a penknife to start the car?" and False alternative – "Did the little girl have one or two brothers?". The author is not clear as to whether the leading and affirmative questions are placed in the same order as the GSS as these are no longer discriminated by Gudjonsson and it was difficult to determine in some cases which question was in which category. This is not considered essential as these are acknowledged (Gudjonsson, 1997) to have been arbitrarily determined. Care was taken that none of the questions could be answered from information shown on the video (to ensure both groups had the same task). The soundtrack from the video was recorded to cassette tape, and this was used to present the task to the audio group.

Design & Procedure

Prior to participation the study was described to participants as a test of witness memory (Appendix 4.2). All participants were assessed by the author in a quiet room on their own ward. The study consisted of two phases.

Phase 1 - All participants were assessed using the GSS2 as described above (with the story presented on audio-tape), but with the addition of the Extra Recall Task at the end. During the 50 minutes between Immediate and Delayed Recall the sub-tests of the WAIS-R were completed. If these had not been completed within this time they were suspended and the GSS2 tasks completed, before resuming the WAIS-R. All GSS components were recorded on a standard tape recorder with free standing microphone, in addition to contemporaneous notes being recorded on Test Record Form For GSS2 (Appendix 4.3). This was based on the published GSS response form but was adapted to allow scoring of the Extra Recall and Led Recall elements. When asking the GSS questions the interviewer concentrated on looking at the question/response sheet to minimise non-verbal indications of an 'expected' answer to participants.

Scoring of Phase 1 - Audio tapes were transcribed by the author's secretary directly to a template of Test Record Form For GSS2. If the recording was unclear this was compared with the contemporaneous notes (although it was not always possible to note everything said at the time). However, using both sources very few elements of responses were incomprehensible. The transcriptions were then scored according to the procedure in the GSS Manual, in addition to scoring the Extra Recall task (using same criteria as the other recall tasks), and adding the Led Recall Score. Led Recall was scored for each of the leading questions, with 1 point for any question where a significant idea which was not otherwise in the story (i.e. the led element), was reported in the Extra Recall Task. For example, someone recalling that the couple owned a dog would be scored as "Led".

Allocation to Experimental Group - After completing Phase 1, participants were matched as pairs according to their scores on the GSS, primarily for Total Suggestibility and secondly for Yield 1. Neither gender nor age were matched as these have been shown to have no bearing on suggestibility in adults (Gudjonsson, 1992), and the sample size meant that I.Q. was impractical to include as a third criterion. One member of each pair was then randomly allocated to each group.

Phase 2 – The procedure followed the same structure as Phase 1 except that the GSS was replaced by the KBS and the participants in the audio-visual group viewed the story on a colour television whereas the audio group listened to it on a tape. In this phase the time between Initial and Delayed Recall was used to complete the relevant sub-tests of the WMSR. All assessments were carried out by the author to ensure consistency and took place from 3 to 7 weeks after the Phase 1 interviews. Scoring of responses was completed as before, but using Test Record Form For KBS (Appendix 4.4).

RESULTS

Reliability

The reliability of the scoring was calculated by an independent rater randomly selecting and scoring 8 GSS scoresheets and 4 pairs of KBS scoresheets (with modality unidentified). The correlations between rater and author are shown in Table 1.

Insert Table 1 about here

With one exception these show good reliability for both assessments, which is consistent with the results reported by Gudjonsson (1997), including the lower consistency for confabulation. The low correlation for extra recall confabulation is likely to represent an artefact of the particular responses chosen as there is no reason that this should be different from the other confabulation scores, as the same stories and criteria are used.

Results Of Phase 1

The purpose of this phase was primarily to match groups and allow subsequent comparison with KBS scores. Table 2 shows how the scores in the current study compare with those previously reported for people with learning disabilities, and a general population sample.

Insert Table 2 about here

These results suggest that the current study population is compatible with those previously reported, and confirm the poor memory and high suggestibility scores of people with learning disabilities on the GSS2. The difference between this group and Gudjonsson & Clare (1995) most likely results from the lower IQ of the current

population. One point of interest is the Total Suggestibility score of 27 for one participant (consisting of 15 for yield and 12 for shift): this is higher than any score reported by Gudjonsson in the GSS norms, the previous highest being 26.

Results Of Phase 2

As already discussed, only 25 participants completed both phases, therefore only twelve pairs are reported in this phase, and when comparisons are made with scores in Phase 1 only the results for the 24 paired participants are used.

The first hypothesis proposed that the memory scores would be higher for the video group than the audio group. These results are presented in Table 3.

Insert Table 3 about here

No significant difference was found between the two groups for recall of the narrative at any stage of the study. The groups were tested using non-parametric statistics because of the distribution of scores, and two-tailed tests were used as a number of results were going against prediction. The mean scores suggest a tendency for the video group to remember more, but the other measures of central tendency often indicate the opposite effect. This may have been influenced by some individuals significantly increasing scores in the video group, but only

inconsistently. It can also be seen that the scores for both experimental groups are higher than for the GSS, suggesting as noted earlier that this passage may be slightly easier to remember. However, this difference did not reach a statistically significant level for either experimental group and the differences are all within the standard error of measurement for the GSS2 (Gudjonsson, 1997).

Although not anticipated, during testing it appeared that participants were remembering a wider variety of items on the KBS. This was confirmed by the data and is represented in Figure 1.

Insert Figure 1 about here

The graphs clearly show key areas in both narratives where participants are more likely to recall information. Some of this reflects primacy and recency effects but may also relate to the salience of information, with poor recall of information that has less relevance for participants. The different shape of recall on the KBS was possibly influenced by the video group members. This was investigated by summing the scores for participants in each group for each item, and subtracting the total score of the audio group from the video group. This is shown in Figure 2.

Insert Figure 2 about here

While some of the distribution in Figure 2 may reflect the increase in scores of a small number of participants as indicated above, it can tentatively be suggested that

the modality of presentation has made a difference to what was recalled. The higher verbal scores for the first section may reflect the fact that this described where the woman had been and was not enhanced by the video. However, it is more difficult to account for the higher verbal scores with items 21 and 22 as these describe the small man and his red jacket.

The second hypothesis was linked to the assumption that the first hypothesis would hold and that the improved recall would result in reduced suggestibility scores for the video presentation group. It is therefore unsurprising that the results presented in Table 4 fail to show the predicted effect.

Insert Table 4 about here

Both experimental groups show fairly similar scores to those on the GSS. While the expected effect of modality was not produced this is not likely to have been a consequence of the KBS being insufficiently suggestible.

Gudjonsson (1990) has reported that individuals who score highly on suggestibility may be more vulnerable to shifting on false alternative than other leading questions. The data was therefore analysed to determine whether the type of question had any impact on yield and shift on both suggestibility scales. This is summarised in Figure 3.

Insert Figure 3 about here

This graph shows a clear trend across all conditions for yield, and particularly shift to be most vulnerable to false alternative questions. Leading and Affirmative questions have been combined as "Leading" in line with Gudjonsson (1997). Wilcoxon Matched- Pairs Tests were used to compare Leading Questions with False Alternatives for all participants on the GSS ($z = -2.2296$, $p = 0.013$), the KBS Audio Group ($z = -.6264$, $p = 0.265$) and KBS Video Group ($z = -1.1314$, $p = 0.129$), with the GSS therefore being the only one to show a significant effect. However when shift was considered Friedman Two-Way Anovas confirmed that differences between question types reached a significant level for all experimental groups with $p < 0.001$ in every case. Subsequent Wilcoxons between each pair of types of question in each group again all reached a significance level of $p > 0.01$, showing that vulnerability to shifting answers to negative feedback is greatest for false alternative questions, followed by other leading questions, and least for non-leading questions.

Table 5 (a & b) provides the results relating to the third and fourth hypotheses regarding the association of recall with IQ and formal assessments of memory functioning and of suggestibility with the same.

Insert Tables 5a and 5b about here

The expected association of recall scores with IQ and formal memory tests are clearly confirmed in Table 5a., but the anticipated association with suggestibility is only apparent in one of the groups in Table 5b.

The inclusion of an extra recall phase in the GSS2 allowed identification of the degree to which information 'led' in questions was incorporated into subsequent recall, (and was designed into the KBS). The results of this are shown in Table 6.

Insert Table 6 about here

Once again no significant differences were highlighted between the experimental groups in relation to any of the features of the additional recall task, but the hypothesis that information contained within the leading questions would be included as part of the original story was confirmed. In fact, a total of 21 of the 26 participants (17 on the GSS2, 15 on the KBS) included at least one element of 'led' information in subsequent recall, and the scores shown in Table 6 indicate that this could include up to 8 distinct elements. When the scores for Extra Recall are compared with those for Immediate and Delayed Recall reported earlier it can be seen that these have reduced for all groups compared to Immediate Recall and also to Delayed recall for the KBS, but not the GSS. In all cases confabulation has increased with Extra Recall (due primarily to the inclusion of the led information). Friedman Two-way Anovas showed that there were significant differences ($P>0.05$) between the stage of recall for memory, and for confabulation for all experimental conditions with the exception of memory recall for the KBS Audio group. The paired comparisons for the significant groups are shown in Table 7.

Insert Table 7 about here

Finally, the pattern of whether 'led' recall was more likely in relation to false alternative questions (as noted for shift earlier) was considered. The results of this can be seen in Figure 4 below.

Insert Figure 4 here

The implications of the results in Figure 4 are unclear as no consistent difference between question type is indicated.

DISCUSSION

The above results provide no support for the hypotheses that an audio-visual presentation of a task like the GSS improves recall or reduces suggestibility scores. This does not appear to have been an artefact of the population used as the scores reported are fairly similar to other studies involving people with learning disabilities. It is also unlikely that it is because the KBS was insufficiently suggestive as, although participants in the audio presentation (and hence most comparable) group indicated lower suggestibility scores this was not to a significant degree, and the scores reported are still much higher than those for the general population on the GSS. It did appear during testing however that two participants completing the 'audio' KBS having answered "don't know" twice in succession realised that this

was not challenged and became more confident in stating this thereafter. However, this was uncommon. Indeed, one of the most striking observations during testing was the willingness, and even confidence, with which several participants answered, when they clearly remembered very little. It does seem that the demand characteristic of an authority figure may have made them feel obliged to answer positively.

Other factors which may have influenced these results include the limitations of matching the pairs. Due to the sample size it was not possible to match for IQ or recall, and the pairings were completed on the basis of total suggestibility score, then yield, then shift. However, given that the strongest effects on the suggestibility scores of people with learning disabilities are from the yield component it may be that matching on the basis of yield first, then total suggestibility, would have improved the pairings. Nevertheless, an effect might still have been expected on the basis of Cardone & Dent's (1996) results using slides. As indicated earlier it may be that the slides focussed on certain aspects and influenced responses accordingly. It does appear that the visual representation in the current study has had an effect on the range of items recalled, but this could also have meant that a lot of irrelevant information distracted viewers. A further complicating factor noticed during testing was that some individuals did not watch the television throughout, and therefore may have missed any advantage provided by the visual modality. Of course, similar lack of attention could have been just as likely for auditory presentations (and much less observable), but even so the content would still be heard. Further work is required to consider the impact of the effects of modality, and the salience of different types of presentation, but the present study provides no

evidence that the current GSS task is disadvantageous to people with learning disabilities due to modality of presentation.

The responses of participants in the study to the different types of suggestible questioning were as expected from the literature (Gudjonsson, 1990) with the false alternative questions clearly producing the greatest error and being most likely to shift. This high level of shift may reflect, as Gudjonsson suggests, a consequence of a ceiling effect on the other leading questions where the led response has already been given for most questions, but the availability of alternatives in the false alternative type means that a positive response can still be provided, which appears to satisfy the interviewer. Alternatively some participants may simply have forgotten their first answer and guessed again, or may have been influenced by the intonation of the question. It was difficult during testing to ensure consistency of emphasis, which could influence the expected response. For example, question 15 in the GSS2 could have its impact as a false alternative type of question reduced if the emphasis was wrong i.e. "Was the boy taken **home** by Anna or John?" might be more likely to obtain the answer "yes" than "Was the boy taken home by **Anna** or **John**?". An additional factor in comprehension is that a number of the words in the assessments are fairly complex and indeed, the negative feedback instruction itself of "You have made a number of errors. It is therefore necessary to go through the questions once more, and this time try to be more accurate" is quite complex. For example the word "error" is unlikely to be used by many of the participants, and this may reduce the force of the negative feedback.

The most interesting aspect of the results was the number of participants who did succumb to including information only mentioned in the questions in their subsequent accounts of the narrative. In some cases this may have reflected confusion with the task demands, with participants repeating everything they had heard. However, in most cases the information was included at appropriate places in their accounts of the story. Particularly interesting was one participant who stated in his recall of the GSS that the couple did **not** have a cat or a dog (which was therefore not scored as 'led') but then described the boy being frightened by the van. This does seem to suggest that the participants in the current study had "come to accept messages communicated during formal questioning" and were responding suggestibly rather than acquiescing. The qualitative nature of such responses and of how they are influenced by particular types of question is worthy of further investigation.

The study clearly highlights the need for interviewers of people with learning disabilities to take great care in the type of questions used not only in relation to police interviewing but also in clinical settings. Further investigation of this phenomenon in other forms of interaction and of "protective" factors may be important in promoting self-determination for people with learning disabilities.

Table 1 Inter-rater reliability for suggestibility scales used in study (correlations)

	GSS2	KBS
Memory		
Immediate Recall	.986**	.970**
Delayed Recall	.997**	.954**
Extra Recall	.993**	.943**
Suggestibility		
Yield 1	.986**	1.000**
Yield 2	.978**	.997**
Shift	.983**	.997**
Total	.972**	.997**
Confabulation		
Immediate Recall	.951**	.884*
Delayed Recall	.982**	.835*
Extra Recall	.637	.893*
Led Recall	.915**	.928**

* = $p \leq 0.01$, ** = $p \leq 0.001$ (all one-tailed)

TABLE 2. – Scores On GSS2 In Current Study Compared To Previous Studies Of People With Learning Disabilities And The General Population

	People with Learning Disabilities									General Population		
	Current Study (n=26)			Gudjonsson & Clare, 1995 (n=68)			Cardone & Dent, 1996 (n=10)*			Gudjonsson, 1997 (n=83)		
	Mean	SD	Range	Mean	SD	Range	Mean	SD	Range	Mean	SD	Range
I.Q.	60.4	8.0	47-75	66.8	5.2	57-75	59.9	5.9	53-74	-	-	-
Age	45.5	14.8	24-76	31	9.4	17-64	36.8	9.1	24-36	30	8.8	16-69
Suggestibility												
Immediate Recall	4.6	3.7	0-13.5	8.1	4.9	0-24	2.2	1.98	-	19.7	6.1	8-35
Delayed Recall	3.4	3.6	0-10.5	6.0	4.9	0-23.5	1.1	1.1	-	18.4	6.0	4-31
Yield 1	11.8	2.7	7-15	9.8	3.5	0-15	12.3	3.36	-	4.5	3.6	0-13
Yield 2	11.7	3.4	6-15	9.4	3.5	0-15	-	-	-	5.5	4.0	0-14
Shift	5.0	3.2	0-13	4.8	3.0	0-13	1.7	1.82	-	3.0	3.0	0-17
Total Suggestibility	16.8	3.2	12-27	14.6	4.6	0-24	-	-	-	7.5	5.3	0-22
				Gudjonsson & Clare, 1995 (n=145, only 68 with learning disability)								
Confabulation												
Immediate Recall												
Distortions	1.96	2.11	0-7	1.15	1.18	0-6	-	-	-	-	-	-
Fabrications	1.54	2.98	0-12	0.40	0.70	0-4	-	-	-	-	-	-
Confabulations	3.50	4.24	0-16	1.56	1.32	0-6	-	-	-	-	-	-
Delayed Recall												
Distortions	1.27	1.54	0-5	1.26	1.08	0-4	-	-	-	-	-	-
Fabrications	1.85	3.71	0-18	0.50	0.74	0-3	-	-	-	-	-	-
Confabulations	3.12	4.73	0-23	1.75	1.27	0-4	-	-	-	-	-	-

* 60 participants in study, but only 10 tested with GSS2 according to standard protocol. Age and IQ scores relate to all in study – not available for sub-group.

TABLE 3 COMPARISON OF MEMORY SCORES BETWEEN EXPERIMENTAL GROUPS (AUDIO v. VIDEO) AND COMPARABLE GSS SCORES

	KBS											GSS2				
	Audio Group (n=12)					Video Group (n=12)					Wilcoxon Matched-Pairs Signed Ranks Test		Paired participants (n=24)				
Test subscale	Mean	SD	Range	Median	Interquartile Range	Mean	SD	Range	Median	Interquartile Range	z-score	2-tailed P=	Mean	SD	Range	Median	Interquartile Range
Memory																	
Immediate Recall	6.54	4.89	0-16	7.25	1.875-8.5	8.42	6.48	1.5-22.5	5.75	3.375-13.75	-.6325	.5271	4.75	3.74	0-13.5	4	2-6.375
Delayed Recall	5.87	4.88	0-17.5	5.25	3.5-7.5	7.38	6.11	1-22	5	3.625-12.25	-.4316	.6660	3.44	3.64	0-10.5	1.75	0.5-5
Confabulation																	
Immediate Recall																	
Distortions	1.08	1.08	0-3	1	0-1.75	0.92	0.90	0-3	1	0-1	-.4260	.6701	2.13	2.11	0-7	1.5	0-3.75
Fabrications	1.00	1.28	0-4	0.5	0-2	0.67	1.07	0-3	0	0-1.75	-.5300	.5961	1.67	3.07	0-12	0.5	0-1.75
Confabulation	2.08	1.88	0-5	1.5	0.25-3.75	1.58	0.90	0-3	1.5	1-2	-.8765	.3808	3.79	4.28	0-16	3	1-5
Delayed Recall																	
Distortions	1.08	1.00	0-3	1	0-2	0.83	1.4	0-5	0.5	0-1	-1.0984	.2720	1.33	1.58	0-5	1	0-2
Fabrications	1.33	1.83	0-6	1	0-2.5	0.33	0.65	0-2	0	0-1	-1.7231	.0849	2.00	3.82	0-18	1	0-2
Confabulation	2.42	2.54	0-8	2	0-3.75	1.17	1.47	0-5	1	0-2	-1.3955	.1629	3.33	4.86	0-23	1.5	0-5

FIGURE 1 – SUM OF RECALL SCORES FOR EACH 'IDEA' IN THE GSS2 AND KBS ACCORDING TO TIME OF RECALL

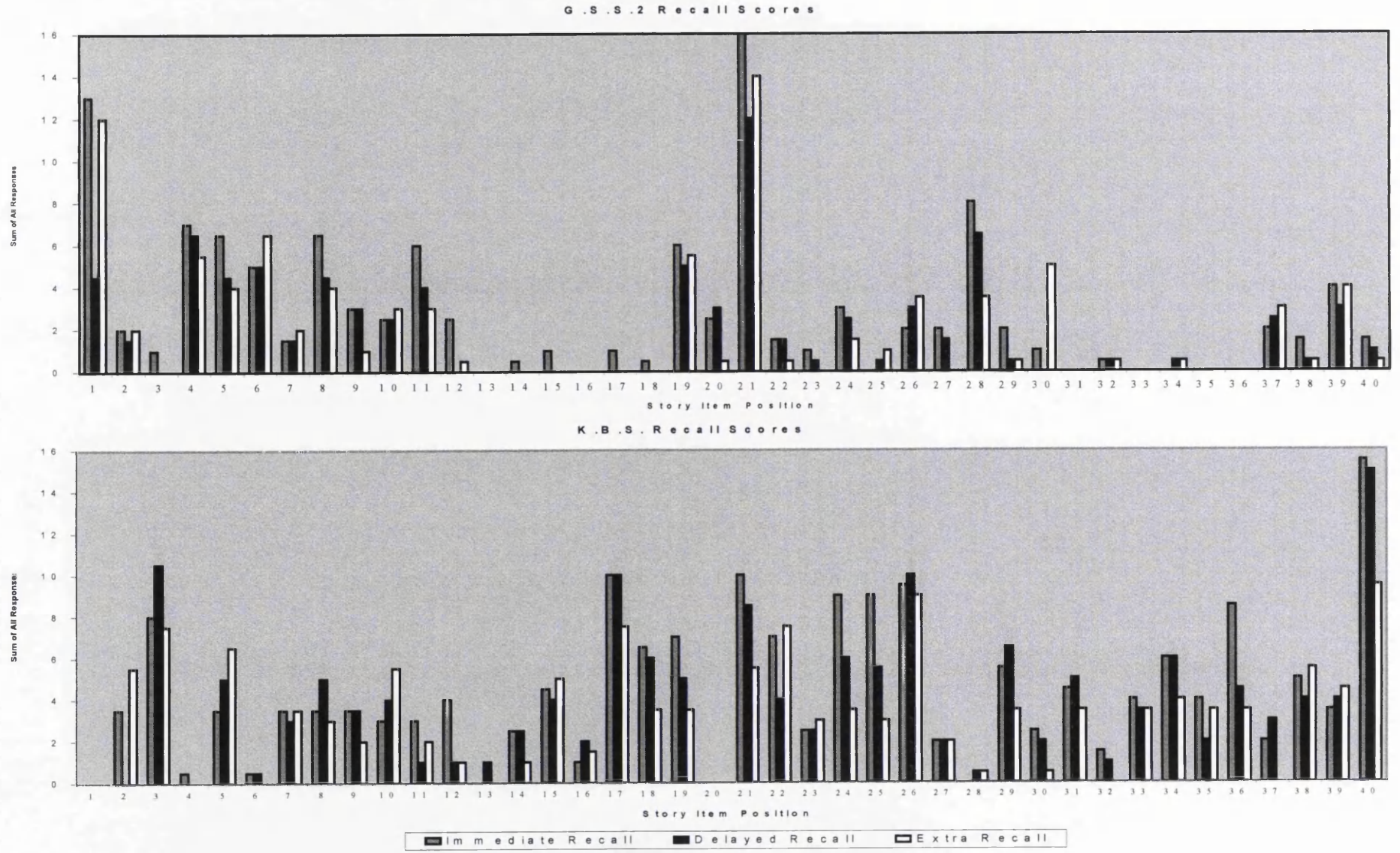


FIGURE 2 – DIFFERENCE BETWEEN TOTAL RECALL SCORES FOR EACH 'IDEA' ON THE KBS FOR VIDEO AND AUDIO GROUPS

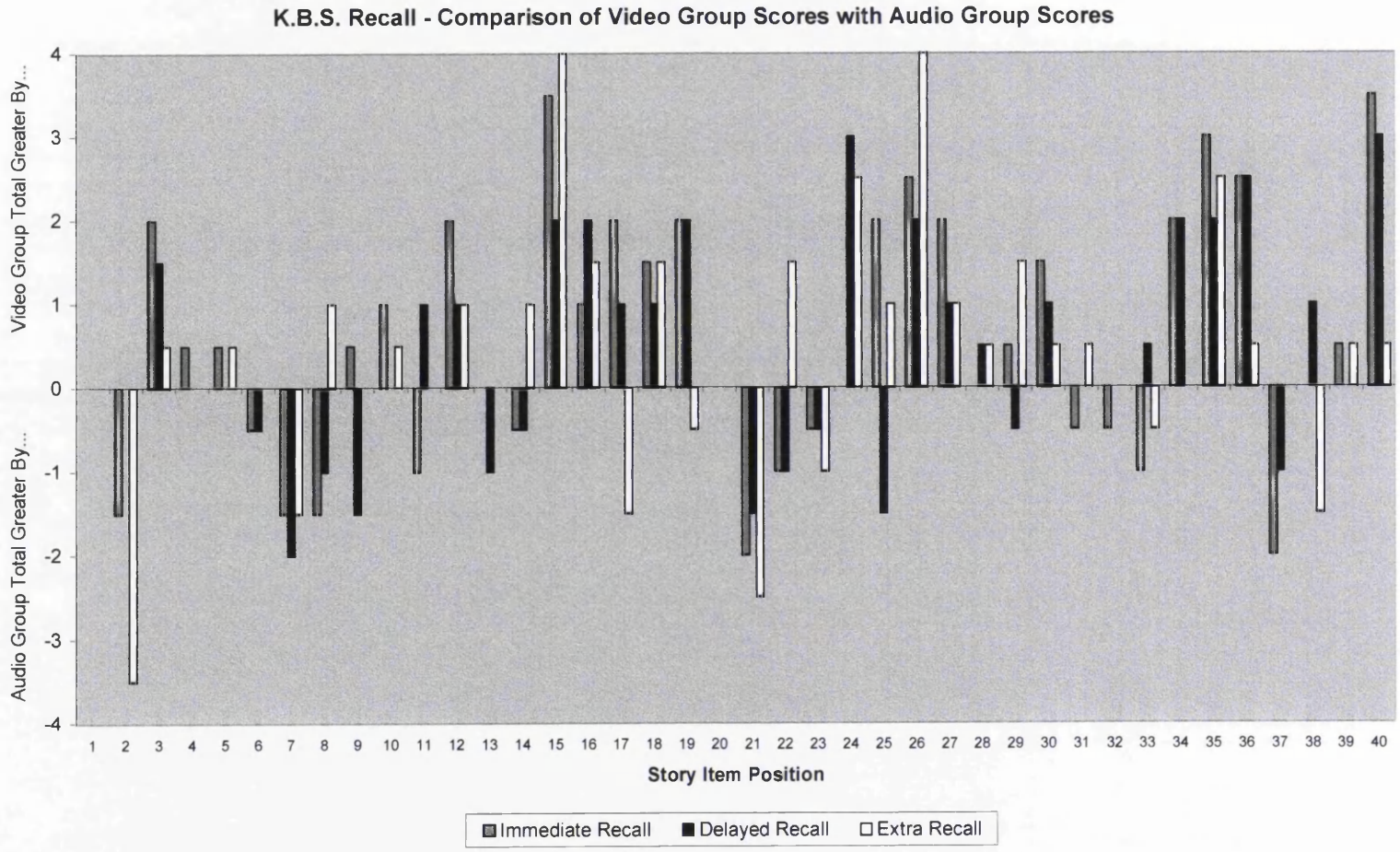


TABLE 4 COMPARISON OF SUGGESTIBILITY SCORES BETWEEN EXPERIMENTAL GROUPS (AUDIO v. VIDEO) AND COMPARABLE GSS SCORES

	KBS											GSS2				
	Audio Group (n=12)					Video Group (n=12)					Wilcoxon Matched-Pairs Signed Ranks Test		Paired participants (n=24)				
Suggestibility	Mean	SD	Range	Median	Interquartile Range	Mean	SD	Range	Median	Interquartile Range	z-score	2-tailed P=	Mean	SD	Range	Median	Interquartile Range
Yield 1	10.75	4.31	3-15	12	6.5-14	11.42	3.99	5-15	13.5	6.75-14	-.4161	.6773	12.12	2.44	9-15	12	9.25-14.75
Yield 2	12.00	3.79	2-15	13	10.5-14.75	11.33	4.27	2-15	13	8.75-14.75	-.4321	.6657	12.08	3.20	6-15	13	8.5-15
Shift	4.00	3.84	1-15	3	1.25-5	5.50	3.63	0-11	4	3.25-9.5	-1.1231	.2614	5.00	3.28	0-13	4.5	2.25-7.5
Total	14.75	4.09	4-19	15.5	14.25-17	16.92	4.44	9-24	18	15-19.75	-1.3004	.1935	17.13	3.01	13-27	17	15-18.75

FIGURE 3 - PERCENTAGE 'YIELD' AND 'SHIFT' SCORES ON GSS2 AND KBS ACCORDING TO QUESTION TYPE

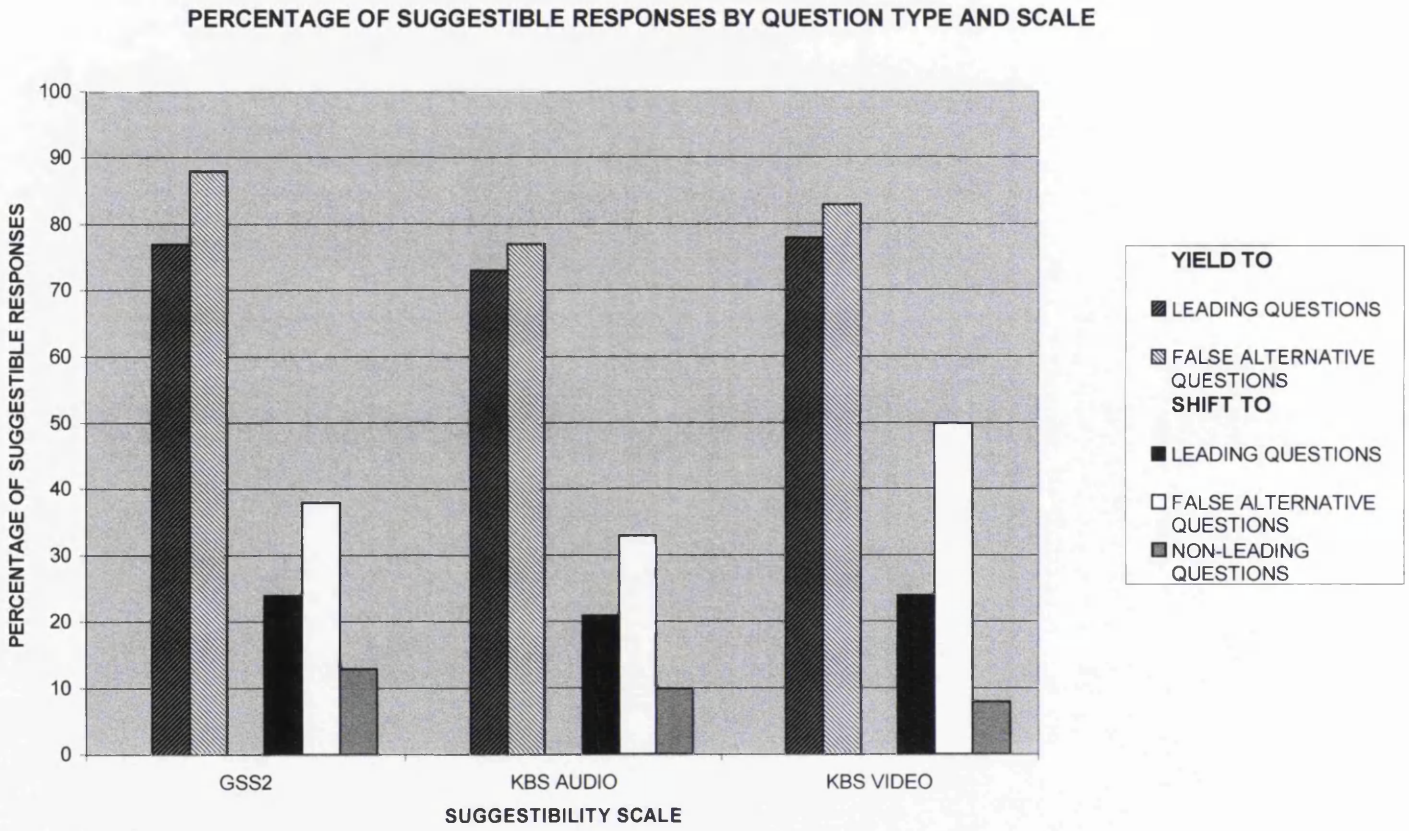


Table 5.a Correlations between Recall, I.Q. and Memory (using Spearman Rank Correlation Coefficient)

	GSS2 STORY RECALL All Participants (N=26;25)[1]			KBS STORY RECALL Audio Group (N=12)			KBS STORY RECALL Video Group (N=12)		
	Immediate	Delayed	Extra	Immediate	Delayed	Extra	Immediate	Delayed	Extra
W.A.I.S.-R.									
Verbal I.Q.	.493 **	.593 ***	.600 ***	.457	.350	.356	.479	.422	.554 *
Performance I.Q.	.689 ***	.676 ***	.809 ***	.418	.484	.508 *	.572 *	.590 *	.650 *
Full Scale I.Q	.624 ***	.650 ***	.763 ***	.420	.474	.502 *	.581 *	.547 *	.750 **
W.M.S.-R.									
Visual Memory	.529 **	.478 **	.610 ***	.502 *	.250	.200	.717 **	.687 **	.604 *
General Memory	.619 ***	.567 **	.712 ***	.565 *	.471	.428	.682 **	.651 *	.632 *
Attention	.516 **	.500 **	.613 ***	.406	.216	.307	.730 **	.653 *	.662 **
Delayed Recall	.587 ***	.615 ***	.739 ***	.420	.484	.413	.609 *	.594 *	.564 *

[1]N= 26 for WAIS-R and 25 for WMS-R

* = $p \leq 0.05$, ** = $p \leq 0.01$, *** = $p \leq 0.001$ (all one-tailed)

Table 5.b Correlations between Suggestibility, I.Q. and Memory (using Spearman Rank Correlation Coefficient)

	GSS2 STORY RECALL All Participants (N=26;25)[1]			KBS STORY RECALL Audio Group (N=12)			KBS STORY RECALL Video Group (N=12)		
	Yield 1	Shift	Total	Yield 1	Shift	Total	Yield 1	Shift	Total
W.A.I.S.-R.									
Verbal I.Q.	-.145	.133	-.132	-.605 *	.274	-.068	-.270	-.066	-.311
Performance I.Q.	-.253	.100	-.255	-.522 *	.205	-.186	-.341	-.166	-.208
Full Scale I.Q	-.138	.037	-.240	-.594 *	.227	-.160	-.250	-.134	-.163
W.M.S.-R.									
Visual Memory	-.231	.247	-.027	-.493	.248	-.078	-.476	.360	.261
General Memory	-.195	.251	.002	-.440	.255	-.0426	-.404	.302	.271
Attention	-.321	.250	-.203	-.598 *	.228	-.150	-.576 *	.367	.119
Delayed Recall	-.096	.190	.045	-.158	.228	.050	-.276	.155	.161

[1]N= 26 for WAIS-R and 25 for WMS-R

* = $p \leq 0.05$ (one-tailed)

TABLE 6 COMPARISON OF EXTRA & 'LED' RECALL SCORES BETWEEN EXPERIMENTAL GROUPS (AUDIO v. VIDEO) AND GSS SCORES

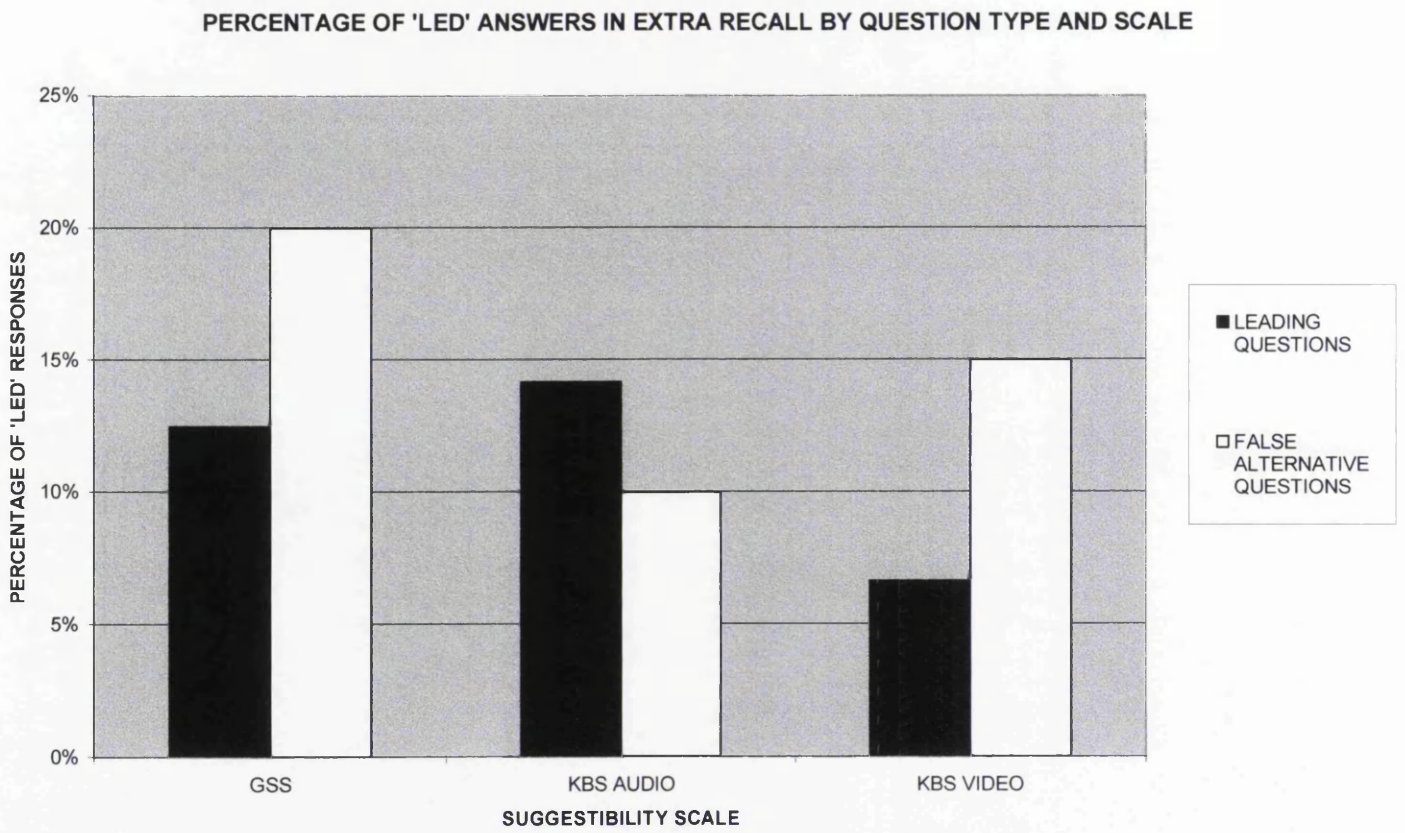
	KBS												GSS2				
	Audio Group (n=12)					Video Group (n=12)					Wilcoxon Matched-Pairs Signed Ranks Test		Paired participants (n=24)				
Extra Recall	Mean	SD	Range	Median	Interquartile Range	Mean	SD	Range	Median	Interquartile Range	z-score	2-tailed P=	Mean	SD	Range	Median	Interquartile Range
Memory																	
Extra Recall	4.92	4.33	0-14.5	4.25	1.125-6.375	6.25	6.54	0-22.5	3.5	1.5-9.5	-.1178	.9063	3.67	3.28	0-10.5	2.5	1-6.25
Confabulation																	
Distortions	1.00	0.95	0-3	1	0-1.75	1.08	1.16	0-3	1	0-2	-.3651	.7150	1.67	1.81	0-6	1	0-3
Fabrications	2.92	2.87	0-9	3	0-5	2.17	2.12	0-5	1.5	0-4.75	-.4962	.6197	3.46	3.40	0-12	3	1-5
Confabulation	3.92	3.26	0-10	5	0.25-6	3.25	2.63	0-7	2.5	1-5.75	-.5615	.5745	5.08	4.67	0-16	4.5	1-8
Led Recall	1.92	2.31	0-7	1	0-4	1.42	1.51	0-5	1	0-2	-.4614	.6445	2.25	2.42	0-8	2	0-3.75

TABLE 7 – COMPARISON OF PAIRS OF EXTRA RECALL SCORES FOR GROUPINGS INDICATED AS SIGNIFICANT BY PREVIOUS ANALYSIS

	KBS				GSS2	
	Audio Group		Video Group			
	Z =	P =	Z =	P =	Z =	P =
Memory/Recall						
Immediate – Delayed	-1.2485	.1059	-2.8079	.0025**	-3.4593	.0003***
Immediate – Extra	-2.0065	.0224*	-2.5538	.0053**	-2.5889	.0048**
Delayed – Extra	-1.8002	.0359*	-1.4186	.078	-1.4152	.0785
Confabulation						
Immediate – Delayed	-	-	-1.2240	.1105	-.4183	.3379
Immediate – Extra	-	-	-1.7970	.0362*	-2.1195	.017*
Delayed – Extra	-	-	-2.3822	.0086**	-2.6347	.0042**

*= $p \leq 0.05$, ** = $p \leq 0.01$, *** = $p \leq 0.001$ (all one-tailed)

FIGURE 4 – PERCENTAGE OF RESPONSES IN EXTRA RECALL 'LED' BY QUESTIONS ACCORDING TO QUESTION TYPE



REFERENCES

Bowden, K. (1998). Police Interviewing and Interrogative Suggestibility of People With Learning Disabilities (current volume).

British Psychological Society (1991). *Mental Impairment and Severe Mental Impairment A Search For Definitions.* Leicester: British Psychological Society.

Brown, C. & Gieselman, R.E. (1990). Eye-witness testimony of mentally retarded: effect of the cognitive interview. *Journal of Police and Criminal Psychology,* **6**, 14-22.

Cardone, D. & Dent, H. (1996). Memory and interrogative suggestibility: The effects of modality of information presented and retrieval conditions upon the suggestibility scores of people with learning disabilities. *Legal and Criminological Psychology,* **1**, 165-177.

Clare, I.C.H. & Gudjonsson, G.H. (1993). Interrogative suggestibility, confabulation, and acquiescence in people with mild learning disabilities (mental handicap): Implications for reliability during police interrogations. *British Journal of Clinical Psychology,* **32**, 295-301.

Clare, I.C.H., Gudjonsson, G.H., Rutter, S.C. & Cross, P. (1994). The Inter-rater Reliability Of The Gudjonsson Suggestibility Scale (Form 2). *British Journal Of Clinical Psychology*, **33**, 357-365.

Clare, I.C.H. & Gudjonsson, G.H. (1995). The Vulnerability of Suspects with Intellectual Disabilities During Police Interviews: A Review and Experimental Study of Decision-Making. *Mental Handicap Research,* **8**, 110-128.

Clarke, A.M. & Clarke, A.D.B. (1974). Experimental studies: an overview. In: A.M. Clarke & A.D.B. Clarke (Eds) *Readings from Mental Deficiency The changing outlook,* pp.148-218, London: Methuen.

Flesch, R. (1948). A New Readability Yardstick. *Journal Of Applied Psychology*, **32**, 221-233.

Gudjonsson, G.H. (1984). A new scale of interrogative suggestibility. *Personality and Individual Differences,* **5**, 303-314.

Gudjonsson, G.H. (1987). A parallel form of the Gudjonsson Suggestibility Scale. *British Journal of Clinical Psychology,* **26**, 215-221.

Gudjonsson, G.H. (1990). The Response Alternatives Of Suggestible And Non-Suggestible Individuals. *Personality And Individual Differences*, **11**, 185-186.

Gudjonsson, G.H. (1992). *The Psychology of Interrogations, Confessions and Testimony.* Chichester: Wiley.

Gudjonsson, G.H. (1997). *The Gudjonsson Suggestibility Scales Manual.* Hove: Psychology Press.

Gudjonsson, G.H. & Clare, I.C.H. (1995). The Relationship Between Confabulation And Intellectual Ability, Memory, Interrogative Suggestibility And Acquiescence. *Personality And Individual Differences*, **19**, 333-338.

Gudjonsson, G.H. & Clark, N. (1986). Suggestibility in police interrogation: A social psychological model. *Social Behaviour,* **1**, 83-104.

Heal, L.W. & Sigelman, C.K. (1995). Response biases in interviews of individuals with limited mental ability. *Journal of Intellectual Disability Research*, **39**, 331-340.

Howells, K. & Ward, M. (1994). Intellectual Impairment, Memory Impairment, Suggestibility and *Voir Dire* Proceedings: a case study. *Medicine, Science & the Law,* **34**, 176-180.

Perlman, N.B., Ericson, K.I., Esses, V.M. & Isaacs, B.J. (1994). The Developmentally Handicapped Witness. *Law and Human Behavior*, **18**, 171-187.

Sticht, T.G. & James, J.H. (1984). Listening And Reading. In: P.D. Pearson (Ed.) *Handbook Of Reading Research,* Vol. 1, pp.293-317. New York: Longman.

Watkins, C.E., Campbell, V.L., Nieberding, R. & Hallmark, R. (1995). Contemporary practice of psychological assessment by clinical psychologists. *Professional Psychology: Research and Practice,* **26**, 54-60.

Wechsler, D. (1981, 1986). *WAIS-R Manual.* New York: Psychological Corporation.

Wechsler, D. (1987). *Wechsler Memory Scale – Revised.* New York: Psychological Corporation.

Williams, C. (1995). *Invisible victims crime and abuse against people with learning disabilities.* London: Jessica Kingsley.

ABSTRACTS FOR SINGLE CLINICAL CASE RESEARCH STUDIES

(INCLUDED IN SUPPLEMENTARY VOLUME)

5.

RISK ASSESSMENT IN LEARNING DISABILITY SERVICES –

WHO, OR WHAT, SHOULD WE BELIEVE?

A CASE STUDY OF A STRUCTURED PRE-DISCHARGE RISK ASSESSMENT

6.

CHALLENGING TWENTY YEARS OF DENIAL - THE IMPACT OF A NEW FORENSIC SERVICE ON A CHILD SEX OFFENDER WITH A BORDERLINE LEARNING DISABILITY

7.

SHOULD LEARNING DISABLED MEN WITH HISTORIES OF ILLEGAL SEXUAL BEHAVIOUR LIVE TOGETHER FOLLOWING DISCHARGE FROM HOSPITAL? AN ILLUSTRATIVE CASE STUDY.

5. SINGLE CLINICAL CASE RESEARCH STUDY

RISK ASSESSMENT IN LEARNING DISABILITY SERVICES – WHO, OR WHAT, SHOULD WE BELIEVE? A CASE STUDY OF A STRUCTURED PRE-DISCHARGE RISK ASSESSMENT

ABSTRACT

A case study is presented of a gentleman with a learning disability who has a history of criminal and challenging behaviour, including arson and self-harm, who was due to be discharged from hospital after several years. The development of a risk management strategy based on a new Risk Assessment Tool (R.A.T.) is described. The R.A.T. includes consideration of risks associated with challenging behaviour towards self and others, medical issues, general safety issues and vulnerability. The commonalities and differences between information obtained from staff, case notes, and the gentleman himself using this method are compared. The application of this information in enabling the gentleman's discharge is described. It is concluded that all three assist in developing a positive risk management strategy.

6. SINGLE CLINICAL CASE RESEARCH STUDY

CHALLENGING TWENTY YEARS OF DENIAL - THE IMPACT OF A NEW FORENSIC SERVICE ON A CHILD SEX OFFENDER WITH A BORDERLINE LEARNING DISABILITY

ABSTRACT

Challenging denial and promoting victim empathy are often key components of treatment programmes for sexual offenders. A case study is presented of a man with a borderline learning disability who had seriously sexually assaulted a child, who having moved to a new treatment facility was supported and challenged regarding denial which had persisted over 20 years of incarceration. Key indicators of change are highlighted and the association of these with episodes of disturbed behaviour is considered. It is concluded that, given the appropriate service, therapeutic gain is still achievable many years after the original offence.

7. SINGLE CLINICAL CASE RESEARCH STUDY

SHOULD LEARNING DISABLED MEN WITH HISTORIES OF ILLEGAL SEXUAL BEHAVIOUR LIVE TOGETHER FOLLOWING DISCHARGE FROM HOSPITAL? AN ILLUSTRATIVE CASE STUDY.

ABSTRACT

Historically, men with learning disabilities who have engaged in sexually offensive behaviour have often been admitted to hospital, either formally via the courts, or informally. Specific treatment within hospital has often been limited or absent. Hospital discharge programmes mean that concern may be expressed about how such individuals can safely be reintegrated into the community. These issues are considered in a case study focussing on a man with a learning disability who had sexually offended against a child and concerns about plans that he would share with another man with a history of inappropriate sexual behaviour. The process of assessment of both men, and the difficulty in assessing the potential risks associated with them sharing are discussed. It is recognised that an appropriate community service may be more appropriate and involve less risk than current care.

APPENDICES